BOARD OF DIRECTORS, CEO EXPERIENCE, CEO TENURE IN THREE REAL EARNINGS MANAGEMENT MEASUREMENT APPROACHES

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Abstract— This study aims to examine several factors that are thought to influence real earnings management. Board of directors size, CEO experience, CEO tenure, company age and profitability on real earnings management. This study grouped real earnings management proxies into three test models, abnormal production and abnormal discretionary expenditure (REM1); abnormal operating cash flow and abnormal discretionary expenditure (REM2); abnormal operating cash flows, abnormal production and abnormal discretionary expenditure (REM3). The three categories of real earnings management are intended to assess the robustness of the test results. The sample of this research is manufacturing companies listed on the Indonesia Stock Exchange during the period 2018-2020. Fifty-eight manufacturing companies meet the sampling criteria so the total sample data obtained is 174. The data of this study were analyzed using random effect panel data. This study's results indicate that profitability negatively affects real earnings management in all real earnings management testing categories. Board of directors, CEO experience, CEO tenure, and company age do not affect real earnings management. The research implies developing knowledge about the factors that influence real earnings management. This study provides empirical evidence that the company's ability to generate high profits can reduce the impetus of company management to perform real earnings management. The findings of this study have implications for investors as a consideration in making decisions that the company's ability to generate profits is a positive indication that the company has good prospects in the future and can reduce the impetus for real earnings management.

Keywords: Board of Directors; CEO Experience; CEO Tenure; Profitability; Real Earnings Management

1. INTRODUCTION

1.1 Background

Financial statements are one of the sources of information for external and internal parties of the company, which becomes an important instrument to show the achievement of effective company goals and management accountability for the company. One of the information contained in the financial statements is earnings information. Earnings are an element that the company can manipulate because earnings are a benchmark of the company's performance and assessment for external parties (Felicya & Sutrisno, 2020). Likewise, Kim &

Sohn (2013) stated that the company's management strives to provide a good earnings performance picture due to the encouragement from users of financial statements, which includes pressure on expectations of certain earnings targets as well as contractual relationships such as bonus agreements and debts. The push causes the company's management to manipulate or manage earnings. Earnings management is an effort made deliberately by the company to manipulate revenue to meet certain earnings targets (Saniamisha & Tjhai, 2019). There are two ways to do earnings management: accrual and real policies. Earnings management through accrual policy is known as accrual earnings management utilizing the concept of accounting accruals to manipulate earnings, such as using certain accounting methods and calculating estimates.

In contrast, real earnings management manipulates earnings by engineering the company's routine operational activities (Sa'diyah & Hermanto, 2017). In research conducted by Roychowdhury (2006), three activities can be done to regulate accounting earnings, namely providing massive discounts to increase sales in the current period, making massive production and cutting discretionary expenditure budgets. Real earnings management is generally done directly to increase earnings in the current period. There are several advantages of real earnings management compared to accrual earnings management, real earnings management is not the focus of auditors or regulators, and real earnings management can directly affect the number of the company's earnings and cash flows in the current period (Joshua & Aryancana, 2015).

Roychowdhury (2006) and Cohen et al. (2008) show that real earnings management generally avoids reporting losses, reporting earnings declines and achieving expected earnings targets. Nevertheless, the impact of the company doing real earnings management is a decrease in the company's future competitiveness and a decrease in the company's performance in the future (Darmawan et al., 2019; Gunny, 2010). For this reason, studying factors that can affect real earnings management is necessary.

This study aims to find out several factors that influence real earnings management, namely the size of the board of directors, CEO experience, CEO tenure, company age and profitability that still have inconsistencies in the results of previous research. The board of directors plays an essential function in the company, carrying out the supervisory function of corporate governance so that it is expected to prevent fraud and disharmony with company goals. Therefore, the existence of the board of directors is expected to minimize earnings management actions that can harm the company (Yunietha & Palupi, 2017). Likewise, the CEO's experience is predicted to maximize the expertise, knowledge and competencies to optimize company profits (Qawasmeh & Azzam, 2020). The time the CEO has served in a company increases the experience and knowledge, making it easier to manage the company's profit (Sani, Latif, and Al-Dhamari, 2020). The duration of the company's existence and operation reflects its resilience in facing various obstacles and challenges so that it tries to maintain the company's reputation in the future that it tends not to take excessive earnings management actions (Felicya & Sutrisno, 2020). Profitability shows the high and low performance of a company. Companies with high performance are more motivated to perform earnings management to maintain their performance (Saniamisha & Tjhai, 2019).

However, several previous studies have shown different arguments and research results. The large size of the board of directors is expected to maximize the control function for the company; it can lead to high earnings management because due to the large size of the board of directors, it can also be challenging to coordinate effectively. The experience and tenure of the CEO, which was initially predicted to reduce earnings management actions, also found the opposite result that the length of experience and the high expertise and competence

of the CEO can be used to carry out earnings management (Alhmood, Shaari, and Al-dhamari 2020; Sani, Latif, and Al-Dhamari 2020; Qawasmeh & Azzam, 2020; Abbasi & Qomi, 2017). Likewise, the length of the company's age is suspected of earnings management because older companies have sufficient experience and expertise (Khanh & Khuong, 2018). While profitability is also found contrary to test results, companies with high profitability are not interested in earnings management because they already have good operational performance (Lengkong & Herawaty, 2019). There are differences in views and the results of previous studies, so this study examines the relationship between the size of the board of directors, CEO experience, CEO tenure, company age and profitability to real earnings management.

In addition, this study conducted tests on factors that affect real earnings management using three combined measurements of earnings management: abnormal production and abnormal discretionary expenditure (REM1); abnormal operating cash flows and irregular discretionary expenditure (REM2); abnormal operating cash flows, abnormal production and abnormal discretionary expenditure (REM3). The REM proxy combination is based on Cohen & Zarowin (2010); Khanh & Khuong (2018). Testing of factors that affect real earnings management using a combination of three different measurements are intended to robustness test the results of the study. This research was conducted on manufacturing companies listed on the Indonesian stock exchange from 2018-2020. Samples of manufacturing companies were used in this study because it is more appropriate to measure real earnings management proxies, especially abnormal production.

The contribution of this research to the development of science is that this research is expected to add insight into factors that affect real earnings management and combined measurements of real earnings management that can provide a more substantial picture. This research also contributes to the users of financial statements, such as investors, to consider factors affecting high or low real earnings management.

The problem of this research can be described as follows:1. Does the size of the board of directors, CEO experience, CEO tenure, company age and profitability affect real earnings management? 2. Which of the three approaches to measuring real earnings management is more decisive in explaining the relationship of factors that affect real earnings management?

1.2 Literature Studies and Hypothesis Development

1.2.1 Agency Theory

Based on agency theory, contractual relationships include principals and agents. The principals are the company's shareholders or owners, and the agents are the company's management. Agency relationships arise when the company owner authorizes management to perform services and decision-making on behalf of the company (Godfrey et al., 2010, p. 362). In such authority, management is responsible for working for the owner's benefit, which can trigger conflicts between the two parties caused by differences in interests (Jenny & Christina, 2019). Agents directly in charge of the company have more information about the company's condition than the principal. Information inequality is called information asymmetry (Sari & Sanjaya, 2019). Information asymmetry is of two types, first is adverse selection, namely the condition of one party knowing more information that the other party does not know. The second is a moral hazard: the state of one party cannot monitor the other party's performance in carrying out its obligations and the monitored party can do things that should not be done (Scott, 2015, p. 137). With information inequality, management must disclose information about the company through financial statements that various parties, including principals, can use. However, as is known, financial statements can be a means for management to maximize their interests because the information they know is more than the

principal. Thus, there is a possibility of manipulating financial statements through earnings management carried out by agents (Lisa, 2012).

1.2.2 Real Earnings Management

Real earnings management is an earnings management technique that is carried out by manipulating the company's operational activities to impact the company's cash flows. The change in technique from accrual to real earnings management is due to the accrual method being more attractive to auditors and riskier than real methods (Kim & Sohn, 2013). Real earnings management can be found in three elements; the first is the operating cash flows, which contain details of the company's operating cash inflows and outflows. Operating cash flows can be manipulated through sales by providing discounts and soft credit requirements. The second is the production cost which contains expenditures related to the production process. Production costs can be lowered by producing goods on a large scale to get high earnings. The last is discretionary expenditures such as general, administration and sales expenses. Cutting the budget for discretionary expenditures can minimize the expenses reported in the financial statements (Sa'diyah & Hermanto, 2017). Nevertheless, although real earnings management can directly increase earnings in the current period, some research (Darmawan et al., 2019; Gunny, 2010) pointed out that companies that do real earnings management will experience a decline in operational performance in the future.

1.2.3 Board of Directors Size and Real Earnings Management

The board of directors is a part of the company consisting of individuals who make company policies and procedures and are responsible for controlling the corporate governance mechanism (Arifin & Destriana, 2016). Based on its role in the company, it is expected that more and more members of the board of directors will minimize the rate of earnings manipulation (Yunietha & Palupi, 2017). However, previous research results by Shahwan & Almubaydeen (2020), Abbasi & Qomi (2017); Susanto & Pradipta, 2016; Susanto & Pradipta (2020) shows that the board of directors has a negative effect on real earnings management. The board of directors is an internal party responsible for the company's operations, so it maximizes the company's welfare. In contrast, Al Azeez et al. (2019); Arifin & Destriana (2016) shows that the board of directors does not affect earnings management because many, or at least the board of directors, need to consider the possibility of earnings manipulation or not. Based on the description above, there are inconsistencies in the results of previous studies, so the hypothesis of this study is stated as follows:

H1: There is an influence of the board of directors on real earnings management.

1.2.4 CEO Experience and Real Earnings Management

The CEO's experience can be reviewed from education level, managerial background, expertise, professional certification, financial or financial experience and previous work. The CEO's experience can affect the company's earnings management level because the experience owned by the CEO can make it easier to manage earnings to achieve the goals (Qawasmeh & Azzam, 2020). Likewise, Alhmood et al. (2020) research show that the CEO's experience positively affects real earnings management. These results can be caused because the experience owned by the CEO can make it easier to manage earnings to achieve their goals. While Chou & Chan (2018) showed different results, a CEO's experience negatively affects real earnings management because earnings management actions have such high risks that CEOs with little experience are less likely to want to take those risks. The research results of Qawasmeh & Azzam (2020) show that the CEO experience does not affect earnings

management because the CEO experience is not a condition or opportunity that can motivate or limit the CEO to do earnings management. Based on the description above, there are findings of previous research results that are inconsistent; thus, the hypothesis of this study is stated as follows:

H2: There is an influence of CEO experience on real earnings management.

1.2.5 CEO Tenure and Real Earnings Management

CEO tenure is the length of time the CEO serves in the company. CEOs with longer tenures will have more experience and knowledge about the company's condition. The results of previous studies showed that CEO tenure positively affects real earnings management (Sani et al., 2020; Qawasmeh & Azzam, 2020; Abbasi & Qomi, 2017). CEOs with longer tenures have the experience and opportunity to take real earnings management actions because they are more accessible and more experienced in knowing the company's condition. Different results are shown by the study of Bouaziz et al. (2020), which shows that CEO tenure has a negative effect on earnings management. CEOs with long tenures are more serious about improving the company's situation and contributing to the growth and development of the business. Alhmood et al. (2020) show that CEO tenure does not affect real earnings management because the CEO's span in a company is not a condition that can motivate or limit the CEO to do earnings management. Based on the description above, there are results of previous studies that are inconsistent; thus, the research hypothesis is stated as follows:

H3: There is an influence of CEO tenure on real earnings management.

1.2.6 Company Age and Real Earnings Management

The company's age has been calculated since the company was established and listed on the Indonesia Stock Exchange (Dewi & Keni, 2013). Companies that have been established for a long time tend to have a low level of earnings management because the company has more experience and usually, companies that have been listed on the IDX for a long time must publish their financial statements to be able to use the information so that it will damage the company's reputation if there is earnings manipulation in it (Felicya & Sutrisno, 2020). Meanwhile, Khanh & Khuong (2018) show that the company age positively affects real earnings management because the longer the company's life, the greater the opportunities and opportunities to do earnings management. Companies that have been established for a long time have experience managing and making designs to improve their performance. On the other hand, they have fierce competition, so they are more driven to earnings manipulation.

Nevertheless, Lengkong & Herawaty (2019); Alexander & Hengky (2017) states that the company age does not influence earnings management. A company that has been established for a long time is not necessarily doing earnings management actions because it has a responsibility to maintain its reputation. New companies are not necessarily proven to do earnings management because they will tend to maintain their reputation as a growing company. Based on the description above, there are still inconsistencies in the results of previous studies, so the hypothesis of this study is stated as follows:

H4: There is an influence of the company age on real earnings management.

1.2.7 Profitability and Real Earnings Management

Profitability indicates the ability of the company to make earnings in a given period. Profitability can also reflect the company's performance so that management wants to

generate high earnings. Management should be encouraged to manipulate earnings because investors will rate the company's performance poorly if the profitability level is low (Saniamisha & Tjhai, 2019). Khanh & Khuong (2018) shows that profitability positively affects real earnings management. Some other studies, such as Devi & Iskak (2018), Alexander & Hengky (2017), and Arifin & Destriana (2016), also showed that profitability has a positive effect on earnings management. The high level of profitability can reflect that the company has an excellent financial performance to attract investors, thus triggering management to do earnings management. The results of different findings are shown by Lengkong & Herawaty research (2019), which shows that profitability negatively influences earnings management. Companies with good profitability can do something other than earnings management to increase their profits. Other research shows that profitability does not affect real earnings management (Adi et al., 2020; Utami & Handayani, 2019). The existence of differences in the results of previous studies, then the hypothesis of this study is stated as follows:

H5: There is an influence of profitability on real earnings management.

This study adds several control variables that, from the results of previous studies, show an influence on real earnings management, namely company size, leverage and audit quality. Some research shows that the size of the company has a negative effect on real earnings management (Utami & Handayani, 2019; Khanh & Khuong, 2018). Large companies generally have more complex operational activities and more accurate reporting because they consider the company's reputation, unlike small companies that may manipulate earnings because they want to attract investors by showing good performance from the company. However, Budi & Putri (2018) state that the size of the company has a positive effect on real earnings management because the level of supervision from the government, employee groups, consumers and investors on large companies causes pressure to maintain the company's reputation, triggering the company's management to manipulate earnings. Likewise, leverage positively affects real earnings management (Khanh & Khuong, 2018; Devi & Iskak, 2018). In general, companies with high debt value will try to improve the company's financial performance to maintain creditors' trust in the company.

In contrast, Asitalia & Trisnawati (2017) showed that leverage has a negative effect on earnings management. Due to the strict supervision of creditors, management is less free to do real earnings management. In contrast, another variable that influences real earnings management is the quality of audits, which positively influence real earnings management (Khanh & Khuong, 2018; Devi & Iskak, 2018; Boedhi & Ratnaningsih, 2017). The use of Big 4 audit firm services to increase the credibility of financial statements can be used by companies to carry out real earnings management that is not easy to detect and is not the main focus of auditors.

2. RESEARCH METHODS

2.1 Real Earnings Management

Real earnings management is the manipulation of earnings from various company operational activities. Real earnings management measurement has three proxies: abnormal operating cash flows, abnormal production costs and discretionary expenditure (Khanh & Khuong, 2018; Cohen et al., 2008; Roychowdhury, 2006). The real earnings management measurement formula is described as follows:

The following formula calculates abnormal operating cash flows:

$$\frac{CFO_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta SALES_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$$

The following formula calculates abnormal discretionary expenditures:

$$\frac{DISCEXP_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$$

The following formula calculates abnormal production:

$$\frac{PROD_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{SALES_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta SALES_{i,t}}{A_{i,t-1}} + \beta_4 \frac{\Delta SALES_{i,t-1}}{A_{i,t-1}} + \varepsilon_{i,t}$$

Information:

$CFO_{i,t}$: operating cash flows of the company i in the period t

$A_{i,t-1}$: total assets of the company i in the previous period

$SALES_{i,t}$: sales of the company i in the period t

$\Delta SALES_{i,t}$: sales of i company in period t minus sales of the company i in the previous period

$\Delta SALES_{i,t-1}$: sales of i company in the previous period (t-1) minus sales of the company i in the previous period (t-2)

$DISCEXP_{i,t}$: the number of sales, marketing, general and administrative expenses of the company i in the year t

$PROD_{i,t}$: the amount of the cost of goods sold and changes in the company's inventory i in the period t

$\varepsilon_{i,t}$: residual value of abnormal cash flows (CFO), abnormal discretionary expenditure (DISCEXP) and abnormal production cost (PROD)

The values of the three real earnings management proxies, namely abnormal operating cash flows, abnormal discretionary expenditures and abnormal production, are obtained by regression of the above equation to obtain standardized residual value. Calculating the amount of the company's real earnings management in one fiscal year used three aggregate measures of real earnings management, namely REM1, REM2 and REM3. To facilitate the interpretation of REM1, REM2, and REM3 results, the abnormal value of operating cash flows and abnormal discretionary expenditure is multiplied by minus one (Cohen & Zarowin, 2010; Khanh & Khuong, 2018). The lower the abnormal value of operating cash flows and discretionary expenditure indicates, the greater the value of real earnings management. Conversely, a greater abnormal value of production indicates a high real earnings management. Real earnings management (REM) calculations are based on Khanh & Khuong (2018); Cohen et al. (2008) are as follows:

REM1= abnormal production + abnormal discretionary expenditure

REM2= abnormal operating cash flows + abnormal discretionary expenditure

REM3= abnormal operating cash flows + abnormal production + abnormal discretionary expenditure

2.2 Board of Directors

The board of directors in the company acts as the manager of the company's business operations. The more directors in a company are expected to be the optimal management of the company's business. The board of directors in this study was measured by the number of directors in a company (Susanto & Pradipta, 2020).

2.3 CEO Experience

The CEO experience is the career journey that a CEO has in reaching his current position. The CEO's experience in this study is the number of executive positions that have been held before becoming CEO of the company today (Alhmood et al., 2020).

2.4 CEO Tenure

CEO tenure is the length of time a CEO serves in a company. With a longer tenure, usually, the CEO can control the company's activities better because they have more experience and knowledge. This study measured the CEO tenure from the years he served as CEO of the company (Alhmood et al., 2020).

2.5 Company Age

The company's age is the beginning of a company carrying out its operational activities to compete and maintain its existence in the business world (Lengkong & Herawaty, 2019). The company's age has been calculated since the company was established, so this study measures the age of the company using the difference between the year of this study and the year the company was established (Khanh & Khuong, 2018).

2.6 Profitability

Profitability is a ratio benchmarked for the company's ability to make earnings in a certain period (Utami & Handayani, 2019). This study measures profitability using return on assets by comparing net profit with total assets at the end of the year (Khanh & Khuong, 2018).

2.7 Control Variables

2.7.1 Company Size

The size of the company is one of the values that can classify the size of a company based on the assets owned by the company (Adi et al., 2020). In this study, the measurements taken to measure the company's size were by the natural logarithm of the total book value of the company's assets at the end of the year (Khanh & Khuong, 2018).

2.7.2 Leverage

Leverage is a scale to measure the number of a company's assets funded by a company's debt. Leverage can also be defined as a company's dependence on debt to finance its operational activities (Adi et al., 2020). The study used a ratio of total short-term and long-term debt to total assets at the end of the year to measure a company's leverage level (Khanh & Khuong, 2018).

2.7.3 Audit Quality

The quality of the audit is intended to assess the fairness of the financial statements examined by the auditor. The audit quality measurement in this study used dummy variables, namely 1 if the company was audited by one of the big four public accounting firms and 0 for the other (Khanh & Khuong, 2018).

2.8 Research Model

This research model was tested using random effect panel data after the results of the Hausman test showed that using random effects was better than using fixed effects. The model for this study is described as follows:

$$REM1_{i,t} = \alpha + \beta_1 BOD + \beta_2 CEOEXP + \beta_3 CEOTEN + \beta_4 AGE + \beta_5 PROF + \beta_6 SIZE + \beta_7 LEV + \beta_8 AQ + \varepsilon$$

$$REM2_{i,t} = \alpha + \beta_1 BOD + \beta_2 CEOEXP + \beta_3 CEOTEN + \beta_4 AGE + \beta_5 PROF + \beta_6 SIZE + \beta_7 LEV + \beta_8 AQ + \varepsilon$$

$$REM3_{i,t} = \alpha + \beta_1 BOD + \beta_2 CEOEXP + \beta_3 CEOTEN + \beta_4 AGE + \beta_5 PROF + \beta_6 SIZE + \beta_7 LEV + \beta_8 AQ + \varepsilon$$

Information:
REM1=Real earnings management (abnormal production and abnormal discretionary expenditure)
REM2= Real earnings management (abnormal operating cash flows and abnormal discretionary expenditure)
REM3= Real earnings management (abnormal operating cash flows, abnormal production and abnormal discretionary expenditure)
α= Constant
β_1-β_8= Coefficient
BOD= Board of directors
CEOEXP=CEO experience
CEOTEN=CEO tenure
AGE= Age of the company
PROF= Profitability
SIZE= Company size
LEV= Leverage
AQ= Audit quality
Ɛ= Error

3. RESULTS AND DISCUSSIONS

The research sample used is a manufacturing company listed on the Indonesia Stock Exchange (IDX) from 2018 to 2020. Sample selection uses the purposive sampling method. Based on the criteria, the number of manufacturing companies that can be sampled is 58. The sample selection procedure can be seen in table 1. This study used secondary data obtained from the official website of the Indonesia Stock Exchange (IDX), which is www.idx.co.id.

Table 1 Sample Selection Procedures

No	Criterion	Number of Companies	Firm-Years
1	Manufacturing companies were consistently listed on the Indonesia Stock Exchange during 2018-2020.	139	417
2	Inconsistent manufacturing companies present financial statements during 2018-2020.	(7)	(21)
3	The manufacturing company did not publish its financial statements in the financial year that ended December 31 during the period 2018-2020.	(3)	(9)
4	Manufacturing companies that do not use the rupiah currency in presenting their financial statements during the period 2018-2020.	(26)	(78)
5	Companies that did not record consecutive net income from 2018-2020.	(45)	(135)
	Total sample	58	174

3.1 Descriptive Statistics

Descriptive statistics provide an overview of research data that includes the mean, minimum, maximum, and standard deviation values of the variables used in this study. The results of the descriptive statistical analysis can be seen in table 2 below:

Table 2 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
REM1	174	-0.000000055	1.63364	-7.13716	4.36410
REM2	174	0.000000053	1.53322	-6.79475	5.26388
REM3	174	0.000000111	2.23230	-9.68581	6.68699
BOD	174	5.33908	2.06959	2	13
CEOEXP	174	3.39655	2.48654	0	11
CEOTEN	174	15.01149	14.91788	1	50
AGE	174	44.39655	16.58637	9	107
PROF	174	0.07922	0.08090	0.00028	0.46660
SIZE	174	29.00668	1.55255	26.48315	33.49453
LEV	174	0.38587	0.18364	0.00345	0.84478
AQ	174	0.39655	0.49059	0	1

REM1 is abnormal production and abnormal discretionary expenditure; REM2 is abnormal operating cash flows and abnormal discretionary expenditure; REM3 is abnormal operating cash flows, abnormal production and discretionary expenditure. BOD is the number of the board of directors; CEOEXP is the CEO experience as measured by calculating the number of executive positions or positions that have been held before becoming CEO; CEOTEN is the length of time the CEO works in the company. AGE is the company's age; PROF is the company's ability to generate profits by dividing net profits by total assets; SIZE is the size of a company as measured by the natural logarithm of total assets. LEV is the debt ratio to total assets; AQ is an audit quality measured using a dummy variable, a value of 1 if the company is audited by a BIG 4, and a value of 0 if vice versa.

REM1 has a mean value of -0.000000055; the standard deviation is 1.63364, with the lowest value of -7.13716 and a high value of 4.36410. REM2 has a mean value of 0.000000053, a standard deviation of 1.53322, a low of -6.79475 and a high value of 5.26388. Finally, REM3 has a mean value of 0.0000000111, a standard deviation of 2.23230, a low of -9.68581 and a high of 6.68699.

The size of the board of directors (BOD) has a mean value of 5.339 and a standard deviation of 2.069, with the lowest value being 2 and the highest value being 13. CEO experience (CEOEXP) has a mean value of 3.396 and a standard deviation of 2.48654, with the lowest value of 0 and a high value of 11. Tenure (CEOTEN) has a mean value of 15.011; the standard deviation is 14.918, with the lowest value being 1 and the highest value being 50. The company age (AGE) has a mean value of 44,396 and a standard deviation of 16,586, with the lowest value of 9 and the highest value is 107. Profitability (PROF) has a mean value of 0.0792 and a standard deviation of 0.0809, with the lowest value of 0.00028 and the highest value is 0.4666.

The company size (SIZE) has a mean value of 29.0067, a standard deviation of 1.5525 with a low of 26.4831 and a high of 33.4945. Leverage (LEV) has a mean value of 0.3859 and a standard deviation of 0.1836, with the lowest value of 0.0034 and a high of 0.8448. Audit quality (AQ) has the lowest value of 0 and the highest value of 1, a mean value of 0.3965 and a standard deviation of 0.4906. Table 4.3 presents the results of the frequency distribution of audit quality variables showing 105 data not audited by the big four public accounting firms

with a percentage of 60.3% and company data audited by one of the big four audit firms, 69 data or 39.7%.

Table1 Audit Quality Frequency Distribution (AQ)

Condition	Frequency	Percentage
Unaudited of the big 4 audit firm	105	60,3
Audited by one of the big 4 audit firms	69	39,7
Total	174	100

3.2 Hypothesis Testing

The results of hypothesis testing are shown in table 4 below:

Table 4 Hypothesis Testing

VARIABLES	REM1	REM2	REM3
BOD	-0.146	-0.0822	-0.122
	(0.118)	(0.300)	(0.290)
CEOSEXP	-0.0222	0.00907	0.00749
	(0.731)	(0.864)	(0.924)
CEOSTENURE	0.0144	0.00211	0.0108
	(0.207)	(0.817)	(0.429)
AGE	0.0041	0.00803	0.0104
	(0.724)	(0.382)	(0.451)
PROFITABILITY	-5.698***	-9.671***	-13.95***
	(0.003)	(0.000)	(0.000)
SIZE	0.132	-0.0602	-0.0102
	(0.384)	(0.618)	(0.955)
LEV	-0.295	0.617	0.451
	(0.734)	(0.389)	(0.669)
AQ	-0.0114	0.137	0.0952
	(0.977)	(0.675)	(0.844)
CONSTANT	-2.792	2.24	1.195
	(0.489)	(0.485)	(0.803)
Adj R2	0.2187	0.3672	0.3731
F	17.94	47.2	47.87
F. Sig	0.0217	0.0000	0.0000
Observations	174	174	174
Number of id	58	58	58

pval in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4 regarding hypothesis testing above shows that the value F calculates ≥ F table and the significance value F below 0.05, indicating that this research model is a fit. The adjusted value of R^2 indicates that the variation in real earnings management variables can be explained by variable variations in board size, CEO experience, CEO tenure, company age and profitability of 0.2187 (REM1); 0.3672 (REM2); and 0.3731 (REM3), while other variables outside the model explain the rest. Based on the adjusted value of R^2, it can be concluded that real earnings management measurements using REM3 can provide a stronger picture of the relationship between the board of directors size, CEO experience, CEO tenure, company age and profitability to real earnings management.

3.3 Discussion

The size of the board of directors (BOD) has a value of greater significance than alpha (pvalue ≥ 0.05) which is 0.118, 0.300 and 0.290, which means Ha1 is unacceptable. The size of the board of directors does not influence real earnings management. The size of the board of directors owned by a company does not affect the occurrence of real earnings management. Many or at least the number of boards of directors is not a determining factor for the occurrence of real earnings management because the decision to do earnings management is more driven by situations, conditions such as pressures or certain opportunities, not by the number of boards of directors owned by the company. The findings do not support previous research by Susanto & Pradipta (2020), which showed that a larger board of directors could reduce real earnings management actions because more and more parties supervise and have good information about the company.

The CEO experience (EXP) has a significance value greater than alpha (pvalue ≥ 0.05) which is 0.731, 0.864 and 0.924, which means Ha2 is unacceptable, so it can be concluded that there is no influence of the CEO's experience on real earnings management. The more or fewer executive positions held before do not encourage real earnings management actions. The findings are because, in general, the company's financial management policy is under the responsibility of the chief financial officer and not the CEO directly (Hsieh et al., 2018). The results of this study are consistent with research conducted by Qawasmeh & Azzam (2020), which showed that the CEO experience does not affect real earnings management.

CEO tenure (TEN) has a value of greater significance than alpha (pvalue ≥ 0.05) which is 0.207, 0.817 and 0.429, which means Ha3 is unacceptable, so it can be concluded that there is no influence of CEO tenure on real earnings management. The findings show that CEOs with long tenures and newly appointed CEOs do not influence real earnings management. The result can be because real earnings management is more driven by certain situations, conditions, pressures and opportunities for company management, so it does real earnings management and not because of the length of time the CEO has served. The findings are consistent with Alhmood et al. (2020).

The company's age (AGE) has a significance value greater than alpha (pvalue ≥ 0.05) which is 0.724, 0.382 and 0.451, which means that Ha4 is unacceptable, so it can be concluded that there is no influence on the company's age on real earnings management. Both established and long-established companies do not influence real earnings management. The study results are consistent with Lengkong & Herawaty (2019). The push to do real earnings management is not caused by many or at least the years the company is established but rather due to the situation and conditions that encourage real earnings management.

Profitability (PROF) has a significance value smaller than alpha (pvalue ≤ 0.05), which is 0.000, 0.000 and 0.000, which means that Ha5 is accepted, with regression coefficient values of -5,698, -9,671 and -13.95, so it can be concluded that profitability has a negative influence on real earnings management. The smaller the company's profitability, the greater the drive to manage real earnings. Companies with a trim level of profitability can trigger management to manipulate earnings so that the earnings target is achieved and the company's performance is considered reasonable by investors. These results are consistent with research by Lengkong & Herawaty (2019). The results of this study support the agency's theory that each party will strive to maximize its well-being. Earnings figures are usually used to assess the company's performance or measure bonuses for management. These circumstances encourage the company's management to increase earnings according to certain earnings targets that will affect the number of bonuses it gets.

The company size control variable (SIZE) has a significance value greater than alpha (pvalue ≥ 0.05) which indicates no influence of the company's size on real earnings management variables. Therefore, the company size does not affect real earnings management. These results are supported by Adi et al. (2020). Leverage (LEV) has a significance value greater than alpha (pvalue ≥ 0.05) which means that leverage does not affect real earnings management. The size of the total debt to the total assets of a company does not affect real earnings management. These results are supported by research (Adi et al., 2020; Lengkong & Herawaty, 2019; Utami & Handayani, 2019). Audit quality (AQ) has a value of greater significance than alpha (pvalue ≥ 0.05) which means that there is no effect of audit quality on real earnings management. Companies audited by either Big 4 or Non-Big 4 audit firms do not influence real earnings management. These results are because real earnings management is challenging to detect and not the focus of auditors (Kim & Sohn, 2013). The findings are consistent with research conducted by Utami & Handayani (2019); Lengkong & Herawaty (2019).

4. CONCLUSIONS

The study examined the relationship between board size, CEO experience, CEO tenure, company age and profitability to real earnings management. Several previous studies have shown a relationship between board size, CEO experience, CEO tenure, company age and profitability in real earnings management, but this study divided the categories of real earnings management measurement into three categories of incorporation: abnormal production and abnormal discretionary expenditure (REM1); abnormal operating cash flows and abnormal discretionary expenditure (REM2); abnormal operating cash flows, abnormal production and abnormal discretionary expenditure (REM3). The results of this study show that only profitability negatively influences real earnings management on all three real earnings management joining proxies. The company's ability to generate earnings indicates that it has good prospects in the future, so it does not encourage the company's management to do real earnings management. The findings support previous research that revealed management's drive to real earnings management is such as avoiding reporting losses, falling earnings or meeting certain earnings targets (Roychowdhury, 2006; Cohen et al., 2008). Thus, if the company can generate good earnings, the company's management is not encouraged to do real earnings management. In addition, this study also showed that measurement of real earnings management using a combination of the three proxies, namely abnormal operating cash flows, abnormal production and abnormal discretionary expenditures, provide findings that powerfully describe the relationship of factors that affect the management of real earnings than other combined real earnings management measurements.

However, this study has failed to prove that the size of the board of directors, CEO experience, CEO tenure, and company age affects real earnings management. The drive to do real earnings management is not solely influenced by one of the company's CEOs or the size of the board of directors but rather by the conditions, situations, opportunities and opportunities that allow real earnings management.

The implication of this research is for the development of science regarding factors that can affect real earnings management, namely profitability which is empirically proven in this study using three forms of combined measurement of real earnings management. The findings also suggest that combined measurements of real earnings management: abnormal operating cash flows, abnormal production and abnormal discretionary expenditure will better describe the existence of real earnings management as a whole. In addition, the findings of

this study can help investors make decisions to invest in assessing or considering profitability as one of the factors that can reduce real earnings management.

5. LIMITATION

This research has some limitations, namely a relatively short research period so that future research can be developed with a more extended period. In addition, some of the factors tested in this study have yet to show an influence on real earnings management. Therefore, for further research can be sought several other factors that can affect real earnings management such as corporate responsibility disclosure, CEO characteristics, and corporate governance mechanism.

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