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The Effect of Audit Quality, Leverage, and Voluntary Disclosure on Real Earnings Management

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Abstract

This study aims to examine the effect of leverage, audit quality, and voluntary disclosure on the real earnings management. The study used secondary data obtained from the annual report for the period of 2017 to 2019. The data were previously processed by the company and were available on the Indonesia Stock Exchange website. The analysis results show that voluntary disclosure, audit quality, and leverage have a significantly negative effect on real earnings management. Besides, voluntary disclosure, audit quality, and leverage simultaneously affect real earnings management.

Keywords
audit quality; leverage; voluntary disclosure; real earnings management

I. Introduction

Based on the Basic Framework for the Preparation of Financial Reports (KDPPLK), financial statements are characterized by their understandability, relevance, reliability, and comparability. Based on PSAK No. 1 par 7 of 2009, financial statements are intended to provide information about the company's financial position, performance, and cash flows that is useful to most financial statement users in economic decisions. The component of financial statements that becomes the public's concern is the income statement since it contains profit information as a parameter for economic decision-making process.

The income statement plays a salient role since investors believe that if a company is profitable, they will have bright prospects to earn returns from their investments. Profit is a company's primary goal in running its business in order to survive and compete with others (Dechow et al., 2010; Mulyani et al). The profit information contained in the income statement is required to observe a company's performance, assess the potential of future resources, the cash cycle of the sources owned, and to formulate estimates of its effectiveness in improving capabilities (IAI, 2010) and Statement of Financial Accounting Concept No.1.

Investor's or creditors' decision-making usually relies on profit term as the main source of information. It is in line with the signaling theory, which says that management signals shareholders through the data available in the financial statements, either as a good signal (good news) or a bad signal (bad news) (Scott, 2015). As a result, this situation is primarily used by managers to carry out earnings management. It is an act of earnings manipulation so that financial statements are biased and unreliable for the users of financial statements regarding the company's performance, even though it does not always harm stakeholders.

Earnings management arises because there is a misalignment between managers' and owners' interests due to information gaps. Managers understand more about the company's opportunities in the future than owners (shareholders). The agency concept states that managers as agents who manage the owner's assets may cause conflicts of interest and

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information asymmetry, which triggers the manager's opportunistic behavior to achieve company targets through selectable earnings management.

There are two types of management, i.e., acrual earnings management and real earnings management (Dechow & Skinner, 2000). Many previous studies on earnings management have been carried out, but they only focus on accrual earnings management. Roychowdhury (2006) stated that top managers tended to choose real earnings management instead of accrual earnings management.

Research conducted by Cohen et al. (2007) found that since the enactment of SOx (Sarbanes-Oxley Act), managers tended to switch from accrual earnings management to real earnings management. In addition, due to the enactment of IFRS standards, the quality of accountants and legal standards has enhanced, encouraging them to carry out real earnings management due to its complexity for auditors or regulators. Meanwhile, Roychowdhurry (2006) argued that real earnings management was preferential because it relates to accurate decisions associated with the determination of product value and a company's total production, which is usually not the auditor's scope.

This issue could expose a company's value at risk in the future. Whether there is a possibility of real earnings management could be observed from several factors, such as debt ratios, external auditor reputation, and the level of voluntary disclosure a company makes in its financial statements. High leverage or debt ratio of a company indicates its significant amount of liabilities. By calculating the debt ratio, one can predict a company's capacity to settle debt which is usually used to fund its operational activities. Companies with relatively high debt ratios have high debt repayment expectations during normal economic conditions but risk loss because they cannot pay debts when the economy is in recession. The high debt ratio encourages managers to carry out earnings management to avoid violations of debt agreements (Tulcanaza, 2020).

In addition to the previous explanation, there are inconsistent results in previous research on real earnings management. Research related to the effect of leverage on real earnings management was conducted, among others by Tulcanaza et al. (2020). With a sample of 6207 quarters of companies in South Korea during the 2010 – 2018 period, they revealed that debt had a significant positive relationship between debt and real earnings management in suspicious companies. Meanwhile, the effect was insignificant in unsuspicious companies. Furthermore, research conducted by Khan & Thu (2019) on 241 companies in Vietnam from 2010 to 2016, Utami & Handayani (2019) for the period of 2013 – 2017 on 490 total data observations in Indonesia, and Andriyani & Hafid (2014) on 16 manufacturing companies in Indonesia for the period of 2009 – 2012, found that leverage affected negatively real earnings management.

II. Review of Literature

2.1 Real Earnings Management

Real earnings management refers to an opportunistic action performed by a manager from operating activities during a period to manipulate a company's profits and mislead stakeholders into believing that the company's goals have been achieved. Real earnings management is motivated by the manager's ambition to make investors believe that the values stated in the financial statements reflect the real operating activities (Roychowdhury, 2006). According to (Graham et al., 2005 & Cohen et al., 2008), when accrual earnings management costs are higher, a company will be more likely to engage in real earnings management. This action dramatically benefits from the feature so that it cannot be tracked by auditors or regulators to be able to continue to manage revenue after years of fraud.

Vulnerability and volatility or the magnitude of price changes indicate market fluctuations in accrual earnings management. Such a situation leads a manipulator to seek more complex and sophisticated accounting methods not to be easily detected.

2.2 Leverage

Leverage is debt owned by a company, generally used to finance its operational activities. The higher ratio of leverage indicates the greater amount of debt the company owns, higher than the ratio of assets it owns (Andriyani & Hafid, 2014). High leverage ratios can reduce cash flow because some investor analysts see cash flow as a noticeable indicator of company performance. Khan & Thu (2019) stated that the effect of leverage on earnings management was different between the general sample and the group of companies with high debt.

Leverage shows the extent to which a company fulfills all its obligations through debt. The higher the leveragemaka, the higher the risk faced by the company and the higher the expected rate of return. Leverage is a description of the extent to which a company's assets are financed with debt and how much debt burden is borne by the company compared to its assets, (Kasmir in Angelia, et al. 2020)

2.3 Audit Quality

Audit quality reflects the reliability of the financial statements that a company has reported. De Angelo (1981) argues that audit quality is like a composite opportunity to detect material deviations in financial statements. The better the external auditors' reputation, the more reliable the information presented in the financial statements will be. In such a case, the external auditor with a good reputation is associated with the Big 4 CPA (certified public accounting) firms because the program is more accurate and effective than the non-Big 4 CPA firm auditors. Thus, it can be said that the size of CPA firms can affect managers to commit earnings management.

External auditors are required to provide the best audit quality in detecting the existence of real earnings management in a company. Later, the audit opinion results become a recommendation for potential investors in the decision-making process to invest. The findings of real earnings management will cause a decline in company's value in the future because investors consider that the company misrepresents its financial statements and presents its false performance (Miati et al., 2016).

2.4 Voluntary Disclosure

Voluntary disclosure of financial statements is voluntarily carried out by an entity without any obligation from the government or the ministry of finance. Voluntary disclosure is the presentation of information that is recommended but not mandatory to provide a fair and relevant presentation to users' needs. Companies with a high level of voluntary disclosure can provide higher stock market liquidity benefits and reduce the cost of capital (Botosan, 1997).

Information disclosure consists of:

- Mandatory disclosure, which is made due to the government’s regulations to disclose information related to a company to the public on a regular basis.
- Voluntary disclosure, which is required by the government to improve a company's reputation, maintain relationships with investors, and reduce the risk of litigation.

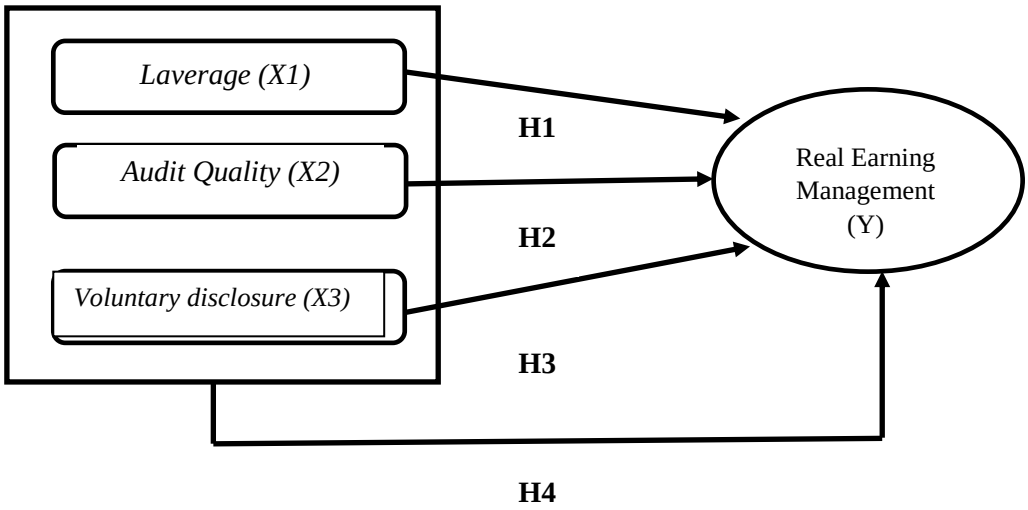

Figure 1. *Conceptual framework*

III. Research Methods

This study uses a quantitative approach by presenting specific hypotheses and then combining data to support or contradict the proposed hypotheses based on statistical information. Sekaran & Bougie (2016) stated that research design aims to understand the various relevant effects in compiling research studies. The research design describes the unit of analysis, period, and level of interference the researcher faces. The research design describes the research design in such a way that the required data will be obtained and analyzed in more detail to arrive at conclusions and solutions. Meanwhile, the variables consist of the dependent variable and the independent variable.

IV. Result and Discussion

There were 20 companies that met the criteria for the study, so the total observation for three years during the observation period was 60 companies. Of the 60 sample companies, there were 17 companies that had outlier data. Thus, they must be excluded from the sample. Finally, the number of final samples used in this study was reduced to 43 companies.

4.1 Descriptive Statistical Analysis

Descriptive analysis helps describe data from all variables used in research, both dependent and independent variables. The results of descriptive statistical tests on real earnings management, voluntary disclosure, audit quality, and leverage ratio are presented in the following table.

Table 1. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. dev.
Y (REM)	43	-.5611	.7776	-.0786	.3201
X1 (VoD)	43	.4420	1.000	.8391	.1487
X2 (AuQ)	43	0	1	.930	.258
X3 (LevR)	43	.0500	.7530	.3646	.1731
Valid N (listwise)	43				

Audit Quality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Big 4 CPA	40	93.0	93.0	93.0
	Non-Big 4 CPA	3	7.0	7.0	100.0
	Total	43	100.0	100.0	

Based on Table 1, the descriptive statistical test results of the dependent variable real earnings management (REM) from 43 data have a minimum value of -0.5611, which is attributed to PT Bukit Asam Tbk (PTBA). Meanwhile, the maximum value is attributed to PT Indofood CBP Sukses Makmur Tbk (ICBP) with a score of 0.7776. The average of REM is only -0.0786 with a standard deviation of 0.3201, it means that most of the sample companies do not perform real earnings management. The standard deviation value is higher than the average due to the wide variety of existing data.

The test results for voluntary disclosure (VoD) show that the minimum value is at PT Gudang Garam Tbk (GGRM) with a score of 0.442. In contrast, the highest score is assigned for PT Wijaya Karya Tbk (WIKA) and PT Aneka Tambang Tbk (ANTM) with a score of 1.00. The average value is 0.8391, and the standard deviation is 0.1487, indicating that the level of voluntary disclosure by the sample companies is considered quite good.

The test results on audit quality (AuQ) show a value of 0 for PT PP Tbk (PTPP), PT Media Nusantara (MNCN), and PT Wijaya Karya Tbk (WIKA), while 40 sample companies own the highest score, which is 1. The average value is 0.930, and the standard deviation is 0.257, indicating that the audit quality level in 43 sample companies primarily used the auditors' service from the Big 4 CPA firms, constituting 93%. Meanwhile, the rest used non-Big 4 ones.

It shows that the test results on the variable debt ratio (LevR) value is 0.500 at PT AKR Corporindo Tbk (AKRA), while the highest score of 0.753 is assigned for PT Jasa Marga Tbk (JSMR). Meanwhile, the average value is 0.3646, and the standard deviation is 0.1731, which reveals that the debt ratio of the sample companies is still considered high because most of their funding sources are derived from debt.

4.2. Classic Assumption Test

a. Normality Test

Normality test is used as a first step in research to detect whether the data used for analysis is normally distributed. Suppose the Kolmogorov Smirnov test results indicate a score lower than the 0.05 requirement, we assume that the data are not normally distributed. Therefore, it is necessary to determine the outlier data from the samples that must be removed; thus, the test results can be considered normal. Later, the rest of the data are tested again to find out whether the research data are normally distributed.

Table 2. One-sample Kolmogorov-Smirnov test

		Unstandardized Residual
N		43
Normal parameters[a,b]	Mean	.0000000
	Std. dev.	.27671853
Most Extreme differences	Absolute	.116
	Positive	.116

	Negative	-.061
Test statistic		.116
Asymp. sig. (2-tailed)		.173[c]

(Source: SPSS data processing)

Based on Table 2 above, we observe the normality test results using Kolmogrov Smirnov after the outliers of the data at the significance level of 0.200. The significant score > 0.05 means that the data in this study can be regarded to be normally distributed.

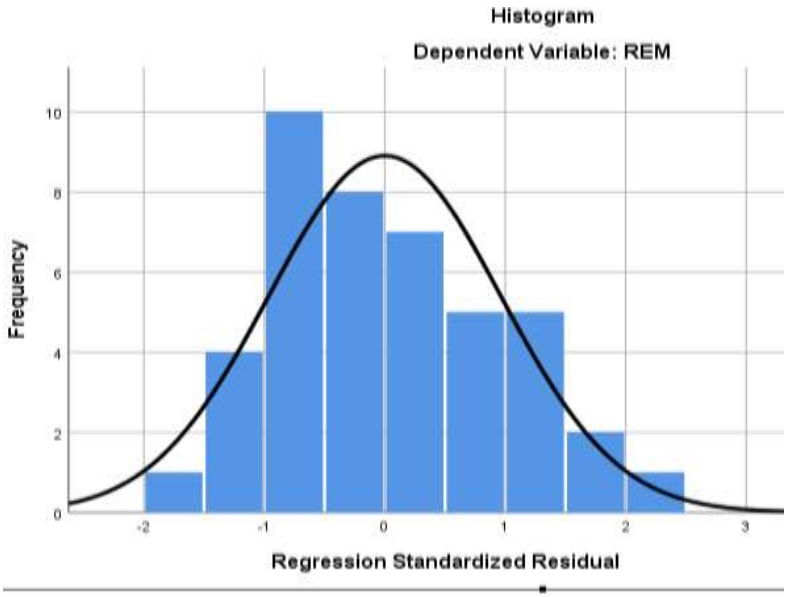

Figure 2. *Normal Histogram*
(Source: SPSS output)

Based on the histogram for the normality test results above, the research data are normally distributed as the curve forms a bell-like shape with the skewness level having a symmetrical position and the dominating bar chart is inside the curve.

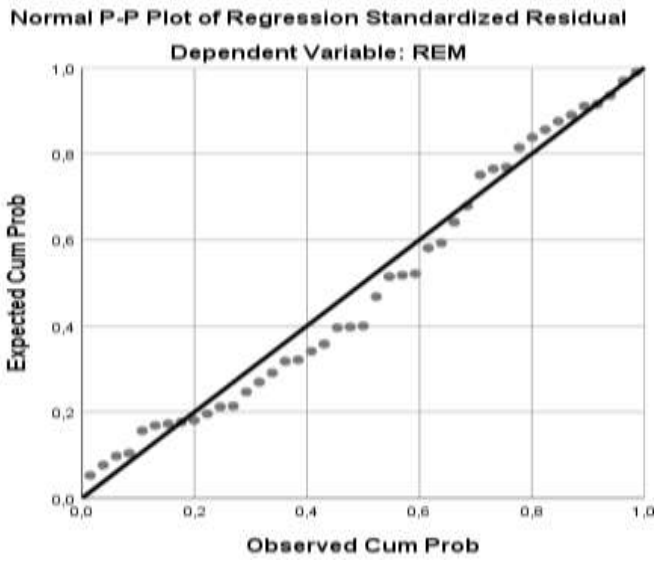

Figure 3. *P-P Plot graph*

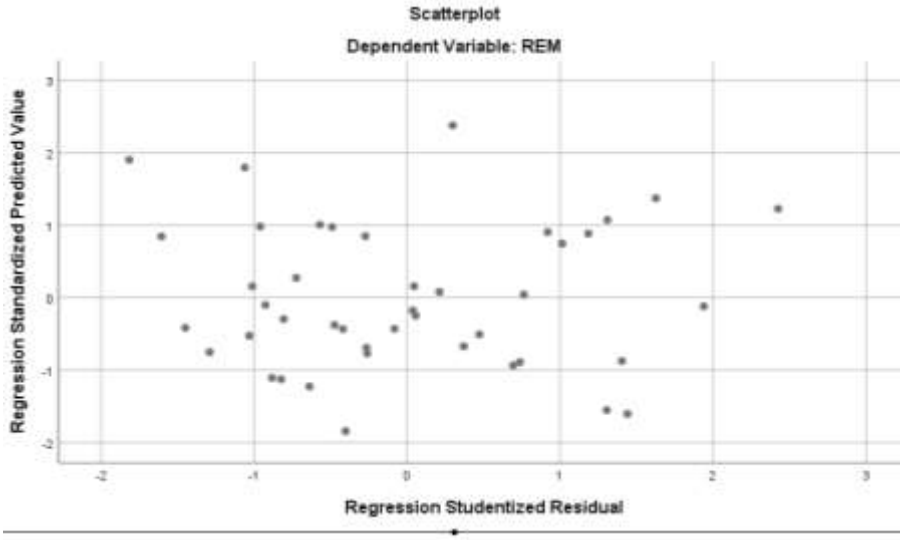

Figure 4. *P-P Plot graph*

Based on the test results as shown in Figure 4.2, we observe that the plot is scattered around the continuous diagonal line. Therefore, we assume that these data are normally distributed.

b. Multicollinearity Test

Multicollinearity test is used to see whether there is a correlation between the independent variables.

Table 3. Multicollinearity test results

Coefficient correlations[a]

Model			Lev_R	Vo_D	Au_Q
1	Correlations	Lev_R	1.000	-.198	.315
		Vo_D	-.198	1.000	.122
		Au_Q	.315	.122	1.000
	Covariances	Lev_R	.078	-.017	.016
		Vo_D	-.017	.096	.007
		Au_Q	.016	.007	.034

a. Dependent variable: REM

Model		Collinearity statistics	
		Tolerance	VIF
1	(Constant)		
	X1 (VoD)	.923	1.084
	X2 (AuQ)	.865	1.156
	X3 (LevR)	.844	1.185

Based on Table 3, we could observe that the correlation and tolerance level between the independent variables is still below 95%. In contrast, the VIF score of all variables shows the value of less than 10. Based on the correlation test results, VIF and tolerance, we can conclude that there is no correlation between the independent variables in the study.

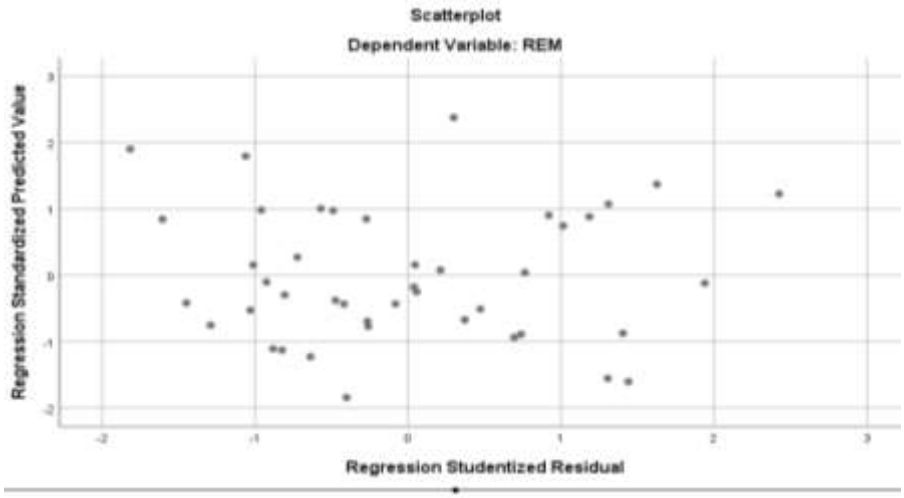

Figure 4.*Scatterplot of the dependent variable*

c. Heteroscedasticity Test

A heteroscedasticity test is performed using the Glejser test to detect whether there is a heteroscedasticity relationship between variables.

Table 4. Glejser test results

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.457	.178		2.571	.014
	Vo_D	-.315	.159	-.314	-1.989	.054
	Au_Q	-.019	.094	-.034	-.206	.838
	Lev_R	.153	.142	.177	1.072	.290

Dependent variabel: AbsUt

According to the scatterplots test results, we can see that the points spread evenly without forming a certain pattern. Meanwhile, the Glejser test results show that the significance value between the independent variables is above 0.05. It indicates that both scatterplots and the Glejser test results show no heteroscedasticity relationship between the independent variables.

d. Autocorrelation Test

In this study, the autocorrelation test used the Durbin Watson test, Ljung-Box and Run test to detect the correlation.

Table 5. Autocorrelation test results

Model	dL	dU	Durbin-Watson
1	1.3663	1.6632	1.883

Table 6. Ljung-Box test results

Autocorrelations

Series: unstandardized residual

Lag	Autocorrelation	Std. error[a]	Ljung-Box Statistic		
			Value	df	Sig.[b]
1	.025	.147	.030	1	.863
2	-.310	.146	4.571	2	.102
3	-.191	.144	6.336	3	.096
4	-.109	.142	6.926	4	.140
5	.209	.140	9.141	5	.104
6	.087	.138	9.537	6	.146
7	-.020	.136	9.559	7	.215
8	-.066	.134	9.797	8	.280
9	-.250	.133	13.368	9	.147
10	-.014	.131	13.379	10	.203
11	.289	.129	18.445	11	.072
12	.068	.127	18.736	12	.095
13	-.132	.125	19.855	13	.099
14	-.157	.122	21.492	14	.090
15	.011	.120	21.500	15	.122
16	.138	.118	22.862	16	.117

Table 7. Runs test

	Unstandardize residual
Test value[a]	-.07300
Cases < test value	21
Cases >= test value	22
Total cases	43
Number of Runs	21
Z	-.305
Asymp. sig. (2-tailed)	.760

(Source: SPSS data processing)

By observing the results of the DW test above, we can see a score of 1.883, dU = 1.663, and dL = 1.366, which means dU>DW <4-dU. As such, we can conclude that there is no autocorrelation in this study. To ensure no autocorrelation exists, we can see the test results in other ways, i.e., Ljung-Box and Run test. Based on the results of Ljung-Box test, none of them are significant at 0.05. The Run test results show a significance >0.05, supporting the confidence that there is no autocorrelation in this study.

4.3. Hypothesis Testing

Based on the overall results of the normality, multicollinearity and heteroscedasticity tests, this study has met the determined standards; therefore, the research proceeds to the next stage.

a. Multiple Linear Regression Analysis

The calculation using multiple linear regression analysis aims to predict the strength and direction of the population relationship between the dependent and independent variables.

Table 8. Regression coefficient test results

Model		Unstandardized coefficients		Standardized coefficients		
		B	Std. error	Beta	t	Sig.
1	(Constant)	1.168	.348		3.356	.002
	Vo_D	-.835	.310	-.388	-2.691	.010
	Au_Q	-.434	.185	-.350	-2.351	.024
	Lev_R	-.388	.279	-.210	-1.393	.171

(Source: SPSS data processing)

Based on Table 8, we obtained the regression equation as follows:

$$\gamma = \alpha + \beta 1 * VoD + \beta 2 * AuQ + \beta 3 * LevR + \varepsilon$$

= 1.168 – 835*VoD – 434* AuQ – 0.388* LevR + ε

From the equation above, we can draw the following conclusions:

- The constant intercept value of 1.168 infers that if all the values of the independent variables are 0, the real earnings management value is 1.168;
- The regression coefficient value of voluntary disclosure (VoD) is -0.835, indicating that if the level of voluntary disclosure increases by one unit, the value of real earnings management decreases by 0.835;
- The regression coefficient test value of audit quality (AuQ) is -0.434, indicating that if audit quality increases by one unit, the real earnings management value will decrease by 0.434;
- The regression coefficient test value of the debt ratio (LeR) accounts for -0.388, meaning that if the debt ratio of the sample company increases by one unit, the real earnings management decreases by 0.388.

b. R2 Determination Test

R2 Determination test was conducted to determine the relationship between the dependent and the independent variable as a whole.

Table 9. R2 test results

Model summary[b]

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.503[a]	.253	.195	.2871644

a. Predictors: (constant), Lev_R, Vo_D, Au_Q

b. Dependent variable: REM

(Source: SPSS data processing)

Based on the adjusted R Square value as shown in Table 4.9 above, we can conclude that real earnings management is merely influenced by voluntary disclosure, audit quality, and leverage ratio of 19.5%. Meanwhile, the rest of 80.5% is influenced by other variables outside the research model.

c. T-test

The T-test is to detect whether there is an effect in the relationship between independent and dependent variables.

Table 10. T-test results

	Model	Unstandardized coefficients B	Unstandardized coefficients Std. error	Standardized coefficients Beta	t	Sig.
1	(Constant)	1.168	.348		3.356	.002
	Vo_D	-.835	.310	-.388	-2.691	.010
	Au_Q	-.434	.185	-.350	-2.351	.024
	Lev_R	-.388	.279	-.210	-1.393	.171

(Source: SPSS data processing)

Based on the results of the T-test in the table above, there are two independent variables with a significant effect on real earnings management, i.e., voluntary disclosure (VoD) and audit quality (AuQ) with a significance level <0.05 and T count > T table (2.023). Meanwhile, the variable of debt ratio has no partial effect on real earnings management since its significance level is > 0.05. The interpretation of the table results are:

d. First Hypothesis (H1)

T count = -2.691, significance level of 0.010 <0.05;
T table = -2.023;

From these results, we can conclude that voluntary disclosure has a significant effect on the occurrence of real earnings management in the opposite direction. It means that if the Vo_D variable increases, it is likely that real earnings management will decrease.

e. Second Hypothesis (H2)

T count = -2.351, significance level of 0.24 <0.05;
T table = -2.023;

From the results above, audit quality has a significant effect on real earnings management in the opposite direction. It means that when audit quality increases, the occurrence of real earnings management will decrease.

f. Third Hypothesis (H3)

T count = -1.393, significance level of 0.171 >0.05;
T table = -2.023;

Based on these results, the debt variable does not directly affect the practice of real earnings management since the test results show a significance level greater than 0.05. However, the T-test results prove that debt has a negative correlation, meaning that when debt increases, it is difficult for the entity to commit fraud. High debt leads the supervision to be increasingly stringent to anticipate the risk of default. Continuous manipulation of the company's reports will lead the regulator or its external auditors to feel suspicious. Therefore, this result can infer that a company with a high debt ratio is less likely to commit manipulation.

g. F-test

The results of the F-test can be seen through the ANNOVA table to determine the level of simultaneous significance between the dependent variable and the independent variable in this study.

Table 11. F-test results

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	1.087	3	.362	4.395	.009[b]
	Residual	3.216	39	.082		
	Total	4.303	42			

a. Dependent variable: REM

b. Predictors: (constant), LevR, VoD, AuQ

(Source: SPSS data processing)

Based on the F-test results above, we can see that the significance level is 0.009 with an F value of 4.395. This study shows that real earnings management is influenced simultaneously by all independent variables since the value of F>4 and significance level <0.05.

4.4. Hypothesis Test Results

a. Voluntary Disclosure Effect on Real Earnings Management

Based on the voluntary disclosure test results, the significant negative effect is not in the same direction. The negative effect is not unidirectional, which means that if voluntary disclosure increases, the risk of real earnings management reduces. Meanwhile, significant means that voluntary disclosure has a direct influence on the occurrence of real earnings management. Therefore, the first hypothesis, which states that voluntary disclosure negatively affects real earnings management in companies in the LQ 45 index, is "accepted".

The study results are in accordance with the existing theory that a high level of voluntary disclosure can provide high liquidity for market share prices (Botosan, 1997). It proves that a company's wide extent of disclosure in its annual report can reduce opportunistic behavior that managers may carry out. It aligns with the agency theory that agents can commit fraud due to opportunities and asymmetry between agents and principals. This asymmetry occurs due to the lack of scope for principals to obtain information on company activities (Jensen & Meckling, 1976). In addition, it is also following the signal theory that high information disclosure turns a positive signal for investors. The research results are in line with the research conducted by Wahyuni et al. (2015) and Darwis (2020), which also found that high level of voluntary disclosure a company provides would reduce the possibility of real earnings management.

b. Audit Quality Effect on Real Earnings Management

According to the study results, audit quality has a significant negative effect, not unidirectional. If the audit quality improves, the risk of real earnings management decreases. Therefore, the second hypothesis is accepted since all elements meet the criteria for the hypothesis. Based on this study, we conclude that sound audit quality associated with external auditors from Big 4 CPA firms can minimize real earnings management. Real earnings management is included in the category of fraud to deliberately change the authenticity of the information to create a bias towards the annual report users. These results align with the fraud theory stating that fraud is a deliberate act by managers to achieve a goal in the wrong way.

De Angelo (1981) attested that examination results from large CPA firms auditors with high reputations can provide good reliability. Thus, a reputable auditor can limit the deviations managers may make because it will be detected more easily than if it is audited by

an auditor without good reputation. The results of this study are in line with research by conducted by Nugrahanti (2016), Miati (2016), and Devi Iskak (2018), which found that companies audited by high-reputable auditors can reduce the risk of real earnings management.

c. Effect of the Leverage Ratio on Real Earnings Management

Based on the test results on the variable of leverage ratio, despite minus result of the T test value, which means a negative effect or is not in the same direction, the level of significance does not meet the requirements. Based on the significance level, the debt cannot affect the company's presence or absence of real profit manipulation. From these results, the third hypothesis is rejected. Existing indications show that too much debt can minimize manager's opportunistic behavior due to tighter supervision from the regulators to prevent the risk of default.

The study results are in accordance with those of the research conducted previously by Mamedova (2009), Andriyani & Khafid (2014), Puspitasari & Nugrahanti (2016), Devi & Iskak (2019), which revealed that an entity's high debt could not individually affect real earnings management. The debt ineffectiveness may be due to the lack of samples after the outliers. Even though the high debt ratio of the company, there are still opportunities for unscrupulous individuals to commit deviant activities to maintain a good public perception to the company. In addition, the ratio in the overall sample is still below 0.5, indicating that it is generally dominated by entities with less debt in financing their operational activities. Moreover, the entities in the sample are companies belonging to the LQ-45 index. The provisions to be included in this index must be companies with the highest activity in terms of shares or their operational businesses, especially those with sound liquidity.

d. Simultaneous Effect of Voluntary Disclosure, Audit Quality, and Leverage Ratio on Real Earnings Management

The T-test results show that the three variables have a negative regression coefficient as well as a negative T-count. It means that when X1, X2, and X3 increase, Y will decrease on the other hand. When observing the test results, F value also accounts for 0.009, which is less than 0.05. It means there is simultaneous effect of the three independent variables on real earnings management in the sample companies. Based on these results, the fourth hypothesis stating that voluntary disclosure, audit quality, and leverage ratio have a simultaneous effect on real earnings management is accepted.

V. Conclusion

In general, this study aimed to investigate the effect of the independent variable on the dependent variable either partially or simultaneously in companies classified as the LQ-45 index. Based on the analysis results using SPSS version 25, there are three accepted and one rejected hypotheses with the following conclusions:

- Voluntary disclosure has a significantly negative effect on real earnings management. A company's sound information disclosure can reduce the probability of the managers committing fraud. Voluntary disclosure provides more value to financial statements to become more reliable for the users.
- Audit quality has a significantly negative effect on real earnings management. Good audit quality, as associated with the Big 4 CPA firm auditor's performance, will reduce the possibility of earnings manipulation through real activities. The Big 4's auditors are attributed to have stringent standards of judgment and more complex procedures.

Therefore, the sample companies listed in the LQ-45 index are very unlikely to commit real earnings management due to their conducive circumstances compared to those outside the LQ-45 index.

- Leverage has an insignificantly negative effect on real earnings management. These results might be due to the sample's average debt ratio, which is still below 0.5, which means that the financial condition with debt is considered sound. Besides, because the samples are classified into the LQ-45 index, the companies' liquidity level is excellent, so their managers have little incentive to commit real earnings management.
- Voluntary disclosure, audit quality, leverage simultaneously affect real earnings management. It means that when these three variables are combined, they have mutual control to reduce real earnings management in LQ-45 indexed companies. Companies listed in the LQ-45 index have the excellent operational activities, income, shares, and liquidity.
- Adjusted R^2 value only accounts for 0.195 or 19.5% real earnings management which is influenced by voluntary disclosure, audit quality, and debt ratio. Meanwhile, 80.5% of the real earnings management occurrence is caused by other factors outside this study. The adjusted R^2 value can increase or decrease depending on the sample, and the independent variables under investigation. Therefore, if other variables are incorporated or the number of samples is augmented, the possibility of the effect will be even greater.

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