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### Influence of Debt to Equity Ratio, Return on Asset Ratio, and Firm Size on Audit Delay

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**Abstract:** This study analyses the effect of debt to equity ratio, return on asset ratio, and firm size toward audit delay. The population in this study is listed companies on mining sector at the Indonesia Stock Exchange circa 2017-2019, which consists of 13 companies. This study employed multiple regression analysis and purposive sampling as an analysis method and sampling technique, respectively. The result shows that debt to equity ratio and return on asset ratio do not have a significant effect on audit delay, meanwhile firm size significantly affects audit delay.

**Keywords:** debt to equity ratio; return on asset ratio; firm size; audit delay

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### Introduction

Financial statement is one of the major parts in annual reporting information of an entity. The purpose of financial report compiling is to describe performance of a company in a time period by showing the financial information. There are some characteristics in arranging the financial report, one of them is time accuracy. The timeliness of financial report is needed to provide the relevant information. According to Hanafi and Halim (2005), time accuracy gives the timeliness of financial information to enhance the possibility on choosing right decision in decision making process. Qualified financial statement can be measured by the time accuracy; hence it increases confidence of user in decision-making because the report has been audited by the professional field.

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Providence and proof of the financial statement of a public company had been regulated on Capital Market Laws Number 2005. However, since September 30<sup>th</sup>, 2003, The Capital Market Supervisory Agency and Financial Institution (now Financial Services Authority) restricted the rules by issuing Kep-40/BL/2007 that concerns about the deadline of financial report and annual report for public entities which listed at the Indonesia Stock Exchange or other stock exchange across countries. The regulation declares that annual financial report requires qualified audit report, afterward, the financial report must be given to The Capital Market Supervisory Agency and Financial Institution not later than the end of third month (90 days) after specified date on financial report.

Debt to equity ratio (DER) is one factor in influencing audit delay. DER is included on solvability ratio. Solvability ratio measures the ability of a company to pay off long-term and short-term liability by utilizing its capital. The better DER is reflected on liability fulfilment related to loans from capital structure of the company, thus related parties perceive that the company is financially stable.

Return on asset (ROA) is a profitability ratio and the fellow factors that affects the audit delay. It measures the ability of a company in earning profits. The higher percentage of ROA gives positive signal to related parties such as investor. Givoly and Palmon (1982) stated that time accuracy and announcement delay of annual profit are affected by the content of financial statement. Companies that announce higher profit tend to issue the financial report on time. In contrast, companies which announce loss would be less punctual in releasing and reporting their financial information, thus makes delay in audit report.

Audit delay appears to be shorter for more successful companies. In contrast, companies with risk characteristics such as poor financial performance more frequently experience audit delay (Abernathy et al., 2016). Based on the aforementioned, there are several determinant factors to represent the financial performance of a company namely, DER, ROA and firm size which are commonly used as control variables in detecting audit delay. However, previous studies have found various results in term of the effect of DER, ROA and company size to audit delay. Leventis et al. (2005) found that there is no association between ROA and audit delay. Further, firm size does not appear a significant relationship to audit delay (e.g., Habib et al., 2018; Habib, 2014; Sultana et al., 2014), moreover, Sultana et al. (2014) found that there is no association between DER and audit delay. However, there are several previous studies that appear a significant relationship between DER, ROA and firm size on audit delay (e.g., Al-Ajmi, 2008; Lai, 2019). Therefore, this study was conducted to identify the relationship between DER, ROA and firm size on listed companies at the Indonesian Stock Exchange period 2017-2019, in particular on mining sector.

## **Literature Review**

### ***Compliance Theory***

The demand of annual financial report compliance for public company in Indonesia has been regulated on Kep-17/PM/2020 and reformed by The Capital Market Supervisory Agency and Financial Institution laws number X.K.2 on Kep.-36/PM/2003. The rule states that annual financial report is required qualified accountant report at least 90 days after published. According to Tyler (in Pramaharjan and Cahyonowati, 2015), there are two basic perspectives on compliance theory which are instrumental and normative. Instrumental perspective assumes solid individual as a whole by raising personal interest and response toward change related to their behavior, while normative perspective is defined as the association between regulation and compliance on time accuracy of financial report issuance. The announcement of financial report of go-public companies in Indonesia has been regulated under capital market and decision of chairman of The Capital Market Supervisory Agency and Financial Institution laws No.80/PM/1996 on National Constitution No.8/1995 about the responsibility of financial report issuance regularly, therefore, the compliance theory is required for the sake of audit report assessment.

### ***Audit Delay***

The audit delay is an excess time span of audit process which measured by the days of auditors need to finish independent audit report of annual financial report of a company since the closing date (December 31<sup>st</sup>) until the release date of audit report. The maximum day of audit report announcement is 90 days after financial report issuance. The problem could emerge when there are company needs to publish the financial report, thus it has to publish both financial report and audit report. Furthermore, delay on audit report could affect the financial report announcement. This can happen on both sides either client and auditor, for example a non-cooperative client that extends longer time of audit process, such as asking for restatement of audit report due to the number of material misstatement or slow response client. From the perspective of the auditor, overload of workload and the excessive quantity of clients are commonly cited as the main problems.

### ***Debt to Equity Ratio***

Debt to Equity Ratio (DER) known as the ability of a company to pay off all the debt included short-term and long-term loans (Riyanto, 2001). DER is an indicator of the health and wealth condition of a company. It is known that companies need fund to run their operational activities. External funding can be the solution of funds fulfilment which leads to the following consequences, such as interest, term of payment, etc. The correlation between DER and audit delay is lower DER shows the ability of the company to pay off all the loans(e.g., Al-Ajmi, 2008; Lai, 2019). Therefore, instalment payment or layaway plan related to loans do not interfere the financial reporting process that lead to delay on audit process.

Hypothesis 1 : Debt to equity ratio significantly affects audit delay

### *Return on Asset Ratio*

Return or Asset (ROA) is the rate return of asset due to the investment in a company. ROA is calculated by dividing net profit to total asset. ROA is an indicator to measure the ability of a company on delivering rate of return in a form of investment and to forecast the financial condition of a company. Moreover, ROA predicts how much investment can deliver rate of return as much as it has been invested at first. At last, the investment is actually similar to the invested asset. Higher ROA indicates higher rate of return attained by a company, which means that the asset utilization takes the right decision. Further, good signal come out to the company, therefore delay on audit will be prevented due to the smoothness of financial reporting process. (e.g., Leventis et al., 2005; Al-Ajmi, 2008; Lai, 2019)

Hypothesis 2 : Return on assets ratio significantly affects audit delay

### *Firm Size*

Firm size is classified by measurement scale such as total asset, stock market value, number of employees, and many others (e.g., Habib et al., 2018; Habib, 2014; Sultana et al., 2014; Al-Ajmi, 2008; Lai, 2019). There are three classification of firm size, namely big, medium, and small. Firm size indicates to perceive the characteristic of a company by showing the parameter used in order to run its activities refer to the research of Suwito and Herawaty (2005). This study classifies firm size onto big four and non-big four public accountant office (accounting and audit firm). Public accountant office is a legal institution where public accountants are gathered as partner in audit process. Furthermore, we seek to explore the association between big four and non-big four public accountant office to audit delay.

Hypothesis 3 : Firm size significantly affects audit delay

Figure 1. **Conceptual framework of the study**

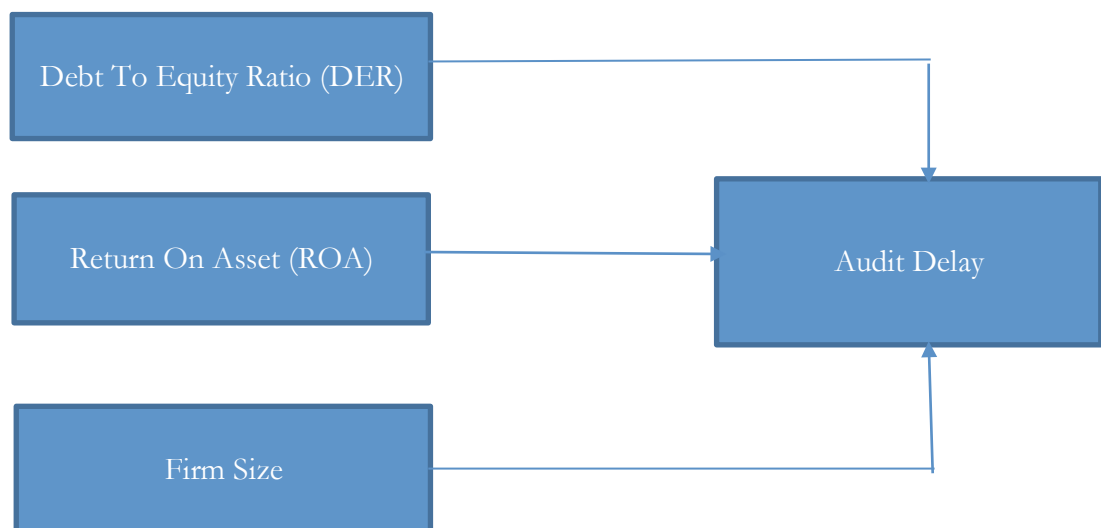


Figure 1 shows the conceptual framework established for this study. There are three independent variables that were tested and identified, namely DER, ROA, and firm size). These variables have been associated to audit delay which is measured by the time of audit report issuance.

## Methods

### *Research Design*

Based on the problem above, this qualitative study is classified as a causal comparative study using an approach to identify the comparison of causal effect between dependent and independent variables. The approach was used to observe and identify the correlation of each variable by finding factors to build the research framework. Subsequent steps were hypothesis formulation and necessary data.

### *Sampling*

There are many sectors of listed manufacturing companies at the Indonesia Stock Exchange. In this study, we focused only on mining sector companies as a population circa 2017-2019. The data is collected from the Indonesia Stock Exchange website ([www.idx.co.id](http://www.idx.co.id)) and 25 mining companies were chosen as initial samples. Purposive sampling method was employed by several tranches, which are given as follows:

1. Listed manufacturing companies on the mining sector at the Indonesian Stock Exchange in 2017, 2018, 2019, respectively.
2. The availability of audited annual financial reports included the audit report in 2017 until 2019.

Based on the criteria above, there are 13 companies in a year as sample (Table 1). This study used panel data as an observation during 2017 until 2019 and obtained 39 samples of observation.

Table 1. List of examined companies

No	Company Name	Company code
1	Adaro Energy Tbk. [S]	ADRO
2	Baramulti Suksessarana Tbk. [S]	BSSR
3	Bumi Resources Tbk.	BUMI
4	Bayan Resources Tbk. [S]	BYAN
5	Delta Dunia Makmur Tbk.	DOID
6	Dian Swastatika Sentosa Tbk. [S]	DSSA
7	Golden Energy Mines Tbk. [S]	GEMS
8	Harum Energy Tbk. [S]	HRUM
9	Mitrabara Adiperdana Tbk. [S]	MBAP
10	Bukit Asam Tbk. [S]	PTBA
11	Petrosea Tbk. [S]	PTRO
12	Golden Eagle Energy Tbk. [S]	SMMT
13	Toba Bara Sejahtera Tbk. [S]	TOBA

Source : www.idx.co.id

### *Data Collection*

We collected the data using documentation method from the Indonesia Stock Exchange website (www.idx.co.id). The secondary data used was published annual financial reports. Multiple regression analysis method (SPSS) was used to determine the delay of audit in association with DER, ROA, and firm size.

Table 2. **Operational Variables in the study**

Variable	Definition	Measurement
Audit Delay	The time span of audit process which measured by the days of auditors need to finish independent audit report of annual financial report of a company since the close date (December 31 <sup>st</sup> ) until the written date of audit report	1 if there is a delay on audit, 0 if there is no delay on audit
DER	The ability of a company to pay off all the debt included short-term and long-term loans	$(\text{Debt}/\text{Equity}) \times 100\%$
ROA	The rate return of asset due to the investment in a company. ROA is calculated by dividing net profit to total asset	$(\text{Net income}/\text{Total asset}) \times 100\%$
Firm size	Firm size is the measurement to classify a company into big or small entity.	1 if big four public accountant office, 0 if non big four public accountant office

### **Findings**

Tabel 3. **Statistic Descriptive**

	Mean	Standard Deviation	N
Audit delay	1.8554	.09621	39
DER	.4772	.20317	39
ROA	.1395	.12280	39
Firm Size	8.6000	1.44147	39

Source: data tabulation

Statistic descriptive offers a glimpse to describe the data of identified variables. According to Table 3, the average and deviation standard are 1.8554 and 0.09621, respectively. The average score is higher than the deviation standard score. This result implies that the data is somewhat lack of diversity. Further, the independent variable which proxied by DER shows average score at 0.4772, meanwhile deviation standard score is 0.20317. Thus, it reflects that there is no gap on the data of DER. ROA shows the average score of 0.1395 and deviation standard score is 0.12280. The result can be interpreted as an absence of gap on the data due to the score of average is higher than deviation standard. The data of firm size displays the similar movement of scores and shows that there is no gap on the data.

Table 4 shows the result of determination coefficient (R-square). The R-square test was employed to obtain perception of the contribution of independent variables toward dependent variable. Table 4 displays the R-square number is 0.204 or 20.4%, which means that DER, ROA, and firm size influence audit were delayed by 20.4%. On the other hand, the remains percentage which is 79.6%, is influenced by other variables beyond our study. Furthermore, the F-test conducted to perceive the simultaneous influence of DER, ROA, and firm size to audit delay. Significant values imply to the viability of the model design, and vice versa.

Table 4. **Determination Coefficient Result**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.451 <sup>a</sup>	.204	.136	.08946	1.475

a. Predictors: (Constant), Firm Size, ROA, DER  
b. Dependent Variable: audit delay

Source: data tabulation

Table 5. **The Result of F-test**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.072	3	.024	2.985	.044 <sup>b</sup>
	Residual	.280	35	.008		
	Total	.352	38			

a. Dependent Variable: audit delay

b. Predictors: (Constant), Firm size, ROA, DER

Source: data tabulation

Based on Table 5 it can be explained that the result of F-test shown by P-value for DER, ROA, and firm size is 0.044. It is lower than  $\alpha$  0.05 (5%), thus DER, ROA, and firm size simultaneously affect audit delay.

Table 6. **T-test Result**

Variable	t-statistic	Significant
DER	-.770	.446
ROA	-.581	.565
Firm size	2.900	.006

Source: data tabulation

T-test is a partial test to identify the influence of each independent variable toward dependent variable. Table 6 displays the result of t-test which has been conducted for this study. Partially, DER (0.446 > 0.05) and ROA (0.565 > 0.05) were not affected audit delay. On the other hand, firm size affects audit delay shown by the t-test significance value which is 0.006 higher than  $\alpha$  0.05 (5%).

### ***Hypothesis Testing***

The test of Hypothesis 1 shows that DER does not affect audit delay on mining companies in the period of 2017-2019. This finding is shown by the number of p-value which is 0.446 higher than the significance level ( $\alpha = 0.05$ ), thus Hypothesis 1 is effectively rejected. DER on t-statistic is 0.770, which is markedly lower than the t-calculated value, which is 2.02619 ( $0.770 < 0.02619$ ). Therefore DER has no influence on audit delay partially.

The conducted test on Hypothesis 2 shows that ROA has no influence on audit delay on mining company circa 2017-2019. The evidence is shown on p-value 0.565 higher than the significance level which is  $\alpha = 0.05$ , thus Hypothesis 2 is rejected. The t-statistic on t-test of ROA is 0.581 lower than the t-calculated value, which is 2.02619 ( $0.581 < 0.02619$ ). Conversely, partially ROA has no influence on audit delay.

The test of Hypothesis 3 shows that firm size affects audit delay on mining company circa 2017-2019. The evidence is shown on p-value 0.006 lower than the significance level which is  $\alpha = 0.05$ , thus Hypothesis 3 is acceptable. The t-statistic of firm size is 2.900 higher than the t-calculated value, which is 2.02619. It means that ROA partially influences audit delay.

### ***Discussion***

The evidence has shown that DER has no influence on audit delay. Intuitively, there was a clear indication of fluctuating DER value of companies. In 2017, there was an increase of DER on BUMI at 0.92 and decrease of DER on HRUM at 0.17. On the other hand, DER on BUMI increased at 0.87 and a decrease of DER on HRUM was recorded at 0.11 in 2019. The fluctuation of DER proves that it does not influencing the audit delay. This finding agrees with similar studies in the literature (Yulianti, 2011; Debbianita et al., 2017) which states solvability has no influence on audit delay. Since the auditors has been providing enough time to complete the audit process for liabilities, large liability from many debt holders in reverse would not affect the audit completion on financial report.

ROA shows no impact on audit delay. Data trend displays the fluctuating ROA has no impact on companies. In 2017, there was an increase of ROA on BSSR at 0.39 and decrease of ROA on PTRO at 0.02. In 2018, there was increase of ROA on BYAN at 0.46 and decrease of ROA on DSRA and PTRO at 0.04. Conversely, increasing of ROA on BYAN and MBAP at 0.18 and decrease of ROA on BUMI in 2019 were also reported. It proves that the fluctuating of ROA has no influence on audit delay, which agrees with Susilawati et al. (2012). This can happen if a company suffers from the increasing and decreasing of insignificant income. Moreover, the demand of related parties is not significant, hence it should not trigger company to communicate the process in auditing financial report quickly.



The result has shown that firm size affects audit delay. Refer to the data tabulation, 13 observed companies were included into big four public auditor office. The existence of auditor from big four public auditor office has positive impact in auditing financial report efficiently and more flexible to accomplish audit process based on the schedules. Furthermore, the user of financial report could receive the information quicker in term of decision making. Big four auditors have generally reliable reputation based on their professionalism performance in maintaining the clients, therefore big four public auditor office tends to complete the audit process quicker than the small public auditor office. This finding agrees with that of in the literature, i.e. Rachmawati (2008) and Wirakusuma (2012).

## **Conclusion**

The result of this study shows that DER, ROA, and firm size simultaneously affect the audit delay in 2017-2019 across listed mining companies at the Indonesia Stock Exchange. Partially, it is only firm size that affects the audit delay. In contrast, DER and ROA have no influence to audit delay. DER has no impact to audit delay because the auditors have provided sufficient and enough time based on their workload despite the imbalance between debts and debt holders. ROA has no impact to audit delay despite income fluctuation, thus it is not an urge for management of a company to deliver the audit report quickly. Lastly, the firm size has impact toward audit delay due to the big firms tend to accomplish audit report in time in regard to the demand of their related third parties such as investor.

We recommend larger scope of samples and period for the follow-up research to represent more factual condition in term of audit delay. Moreover, other variables such as reputation of a company, IFRS convergence, and opinion of auditor are noteworthy for inclusion in the future studies.

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