

## **LOW AUDIT QUALITY: CLIENT COMPLEXITY AS MODERATING VARIABLE, PRE- AND AT THE PANDEMIC COVID-19 PERIOD**

**Antonius Herusetya<sup>1\*</sup>, Yiska Cornelia Halim<sup>2</sup>**

<sup>1,2</sup> Universitas Pelita Harapan, Tangerang, Indonesia

<sup>1</sup> antonius.herusetya@uph.edu

### **Abstract**

We suspect that in the era of the COVID-19 pandemic, where physical distance is required by rule, audit quality will decline, especially for small audit firms. This study examines the low audit quality of the modified audit opinion. Low audit quality is measured by low audit tenure and non-Big Four accounting firms. This study also examines this relationship in the era of the COVID-19 pandemic. The sample is all non-financial companies listed on the Indonesia Stock Exchange for 2018-2020. Using logistic regression analysis in our models, our study show contrary empirical evidence to our hypothesis that low audit tenure and non-Big Four audit firms are positively related to modified audit opinion. However, this study found no evidence that client complexity affects the relationship between low audit tenure and non-big four with modified audit opinions, both in the entire observation period and during the COVID-19 era. Our results give new implications to the stakeholders that audit quality of low tenure and non-Big Four firms do not automatically decline in the era of the COVID-19 pandemic.

**Keywords:** audit quality; audit tenure; client complexity; COVID-19; non-Big Four

### **INTRODUCTION**

Today, the world is shocked by the emergence of a new disease outbreak due to SARS-CoV-2 virus, often referred to as COVID-19. This virus was identified for the first time in Wuhan, China, on December 1, 2019, and then spread to all corners of the world, including Indonesia. The first confirmed case of the SARS-CoV-2 virus in Indonesia was recorded on March 2, 2020, with two cases at once in Depok, West Java (CNN Indonesia, 2020).

The COVID-19 pandemic has made investor sentiment on the market, causing the market direction to be negative. The continuous development of COVID-19 cases exacerbates this, so market fluctuations are carried in a negative direction [1]. In addition, the sluggish global economy has further hampered economic growth in Indonesia. Various government efforts to control the transmission of this virus have also impacted the country's economy, such as restrictions on closing shopping centers, tourist attractions, schools, and entertainment centers, to various existing modes of transportation [2]. As a result, almost all business fields have been affected by the COVID-19 pandemic. Reinhard Dotzlaw, KPMG's Global IFRS leader 2020, stated that COVID-19 poses various threats to business people in maintaining business continuity, including corporate financial reporting [3].

The sudden changes due to the COVID-19 pandemic have created serious obstacles for independent auditors and company public accountants. For example, with physical and social distance rules, the auditor will find it difficult to carry out audit procedures and collect appropriate and adequate audit evidence as required by auditing standards in the fieldwork. Another example is the impossibility of observing the physical inventory count and the physical exam on purchasing material fixed assets. These conditions will threaten audit quality and the quality of client financial reports, especially for small audit firms, because reporting quality is not limited to measuring assets and liabilities only but also disclosure, including company viability [4].

A longer auditor tenure indicates an increase in audit quality because auditors are suspected of having increasing competence due to increased experience and knowledge of their

audit clients [5]. On the other hand, auditors do not have specific information about clients during their shorter tenure, so the audit quality cannot be guaranteed. However, a long audit tenure makes the auditor have a close relationship with his client, reducing the auditor's independence and objectivity and threatening audit quality [6], [7]. Therefore, our study hypothesizes that the low audit quality reflected in the short tenure can threaten the audit quality because the auditor has not received adequate knowledge of the client and the industry. We, therefore, make a hypothesis statement as follows:

H1: Low audit tenure has a negative impact on modified audit opinion (MAO)

The size of audit firms in Indonesia is often classified into Big Four and non-Big Four audit firms. Reporting from CNBC Indonesia, throughout 2019, there were several cases of violations involving big public accounting firms, such as EY and Deloitte, related to the audit of the company's financial statements [8]. In contrast, large audit firms or affiliated with international audit firms are considered to have better audit quality than small audit firms [9].

Although some of the cases mentioned above, results of past studies abroad conclude that larger audit firms provide higher audit quality than audit firms with smaller sizes [10, 11]. On the opposite, we hypothesize in our study that the smaller audit firms in Indonesia do not have high audit quality compared to the Big four audit firms.

H2: Non-Big Four audit firms have a negative impact on modified audit opinion (MAO).

The company's complexity is a characteristic of companies related to their diverse operations and can provide greater challenges to independent auditors in carrying out audits [12]. The complexity of audit clients can be seen through the number of subsidiaries that carry out their operations abroad [13]. Having subsidiaries spread across various regions can affect the audit process because it requires auditing various items and a more complex audit process. Empirical studies find that higher audit complexity can reduce the audit quality the auditor provides [14]. However, the complexity of the client can influence the auditor to gain experience so that he can complete audit tasks at a high level of complexity and faster in the future [15]. Empirical studies find that operating complexity moderates the relationship between audit tenure and audit quality [16]. In addition, they find evidence that for clients with high complexity in their operations, auditors with longer tenures can produce higher audit quality than auditors with low tenure. This is because the low auditor tenure causes the auditor to lack mastery of the business characteristics of the audit client company. Meanwhile, auditors with longer tenures have better knowledge of the business of their audit clients, so auditors with longer tenures can more easily identify violations and find violations committed by clients.

In contrast, auditors with shorter tenures require time-consuming adaptation efforts to understand the client's business, reducing the ability to detect violations. Therefore, the quality of this audit will be reflected in the provision of modified audit opinions. Based on SA 700, audit opinion is classified into two types, namely modified audit opinion and non-modified audit opinion. In this study, modified audit opinions consist of all auditors' opinions, except unqualified ones [17, 18, 19, 20, 21]. Empirical studies also found that non-big N did not tend to give modified opinions or were more likely to issue unqualified opinions [17]. We hypothesize that the complexity of client operations has a moderating effect that weakens the relationship of low audit quality, represented by low tenure and non-Big Four audit firms and the tendency to issue modified audit opinions.

H3: Client complexity has a moderating role that strengthens the negative effect of low audit tenure and modified audit opinion.

H4: Client complexity has a moderating role that strengthens the negative effect of non-Big Four audit firms and modified audit opinion.

Furthermore, in the era of the pandemic COVID-19, we suspect that a shorter audit tenure will further reduce the audit quality. In addition, due to regulations relating to physical distancing in the COVID-19 pandemic, it is increasingly difficult for non-Big four auditors to carry out the audit process and collect audit evidence in the field, which in turn will have an impact on a greater decline in audit quality. We, therefore, make a hypothesis statement as follows:

H5: COVID-19 has the moderating role that strengthens the negative effect of low audit tenure and modified audit opinion.

H6: COVID-19 has the moderating role that strengthens the negative effect of non-Big Four and modified audit opinion.

In addition, in the era of the COVID-19 pandemic, the moderating role of the complexity of client operations will be even worse, affecting the relation between low audit quality and modified audit opinion. Thus, our hypothesis statements are stated as follows:

H7: In the COVID-19 era, client complexity has a more negative impact on the relationship between low audit tenure and modified audit opinion.

H8: In the COVID-19 era, client complexity has a more negative impact on the relationship between non-Big Four and modified audit opinion.

## **METHODOLOGY**

### **Population and sample**

The study population is all companies engaged in all industries, except for the financial industries, listed on the Indonesia Stock Exchange (IDX) from 2018 to 2020. The data source is taken based on the non-probability sampling method with purposive sampling technique derived from the company's financial statements published, or S&P Capital IQ, as well as the IDX's official website, which can be accessed at [www.idx.co.id](http://www.idx.co.id), and has been audited by an independent auditor. Our sample profile is presented in Table 1.

### **Empirical model**

This study uses logistic regression analysis models to test hypotheses and STATA software (Software for Statistics and Data Science) version 15.0 application for technical data analysis.

$$\begin{aligned} \text{MAO}_{it} = & \alpha_0 + \alpha_1 \text{LOWTEN}_{it} + \alpha_2 \text{NBIG4}_{it} + \alpha_3 \text{SGMT}_{it} \\ & + \alpha_4 \text{FOREIGN}_{it} + \alpha_5 \text{IR}_{it} + \alpha_6 \text{LOSS}_{it} \\ & + \alpha_7 \text{ROA}_{it} + \alpha_8 \text{LEV}_{it} + \alpha_9 \text{QUICK}_{it} \\ & + \alpha_{10} \text{SIZE}_{it} + \alpha_{11} \text{GROWTH}_{it} + \varepsilon_{it} \quad (1) \end{aligned}$$

We predict that  $\alpha_1$  and  $\alpha_2$  are  $<0$  and significant to support our hypotheses that low audit quality is less likely to issue modified audit opinions in Eq. (1).

$$\begin{aligned} \text{MAO}_{it} = & \alpha_0 + \alpha_1 \text{LOWTEN}_{it} + \alpha_2 \text{NBIG4}_{it} \\ & + \alpha_3 \text{COMPLEX}_{it} + \alpha_4 \text{LOWTEN} * \text{COMPLEX}_{it} \\ & + \alpha_5 \text{NBIG4} * \text{COMPLEX}_{it} + \alpha_6 \text{SGMT}_{it} \\ & + \alpha_7 \text{FOREIGN}_{it} + \alpha_8 \text{IR}_{it} + \alpha_9 \text{LOSS}_{it} \\ & + \alpha_{10} \text{ROA}_{it} + \alpha_{11} \text{LEV}_{it} + \alpha_{12} \text{QUICK}_{it} \\ & + \alpha_{13} \text{SIZE}_{it} + \alpha_{14} \text{GROWTH}_{it} + \varepsilon_{it} \quad (2) \end{aligned}$$

We predict that  $\alpha_4$  and  $\alpha_5$  are  $<0$  and significant to support our hypotheses that client complexities have a moderating role in strengthening the relationship between low audit quality and modified audit opinions in Eq. (2).

$$\begin{aligned} \text{MAO}_{it} = & \alpha_0 + \alpha_1 \text{LOWTEN}_{it} + \alpha_2 \text{NBIG4}_{it} \\ & + \alpha_3 \text{COMPLEX}_{it} + \alpha_4 \text{COVID}_{it} \\ & + \alpha_5 \text{LOWTEN} * \text{COMPLEX}_{it} \\ & + \alpha_6 \text{NBIG4} * \text{COMPLEX}_{it} \\ & + \alpha_7 \text{LOWTEN} * \text{COVID}_{it} + \alpha_8 \text{NBIG4} * \text{COVID}_{it} \\ & + \alpha_9 \text{COMPLEX} * \text{COVID}_{it} \\ & + \alpha_{10} \text{LOWTEN} * \text{COMPLEX} * \text{COVID}_{it} \\ & + \alpha_{11} \text{NBIG4} * \text{COMPLEX} * \text{COVID}_{it} \\ & + \alpha_{12} \text{SGMT}_{it} + \alpha_{13} \text{FOREIGN}_{it} + \alpha_{14} \text{IR}_{it} \\ & + \alpha_{15} \text{LOSS}_{it} + \alpha_{16} \text{ROA}_{it} + \alpha_{17} \text{LEV}_{it} \\ & + \alpha_{18} \text{QUICK}_{it} + \alpha_{19} \text{SIZE}_{it} + \alpha_{20} \text{GROWTH}_{it} \\ & + \varepsilon_{it} \end{aligned} \quad (3)$$

**Table 1. Sample Selection**

Description	Firms	Firm-years
All listed firms on the IDX are still operating from 2018 to 2020.	716	2.148
New listing firms and firms that change in the type of industry during the study period.	(152)	(456)
Firms in the financial industries	(94)	(282)
Companies that in the presentation of their financial statements use other foreign currencies other than IDR	(79)	(237)
Companies with incomplete financial data	(51)	(153)
Number of samples	340	1.020
<i>Outlier Data</i>	-	(38)
Final sample in firms and firm-years observations	340	982
Source: IDX website and S&P Capital IQ		

We predict that  $\alpha_7$  and  $\alpha_8$  are  $<0$  and significant to support our hypotheses that in the COVID-19 era, low audit quality in terms of low audit tenure and non-Big Four tend to be lower toward the MAO. We also predict that  $\alpha_{10}$  and  $\alpha_{11}$  are  $<0$  and significant to support our hypotheses that in the COVID-19 era, client complexities have a stronger moderating role in strengthening the relationship between low audit quality and modified audit opinions in Eq. (3).

Following [20], our study uses a nominal scale to measure the Modified Audit Opinion (MAO), i.e., MAO is given a score of 1 if the auditor issues an MAO; and 0 otherwise. Non-Big four audit firms equal one if audited by non-Big Four audit firms; and 0 otherwise ([10, 22, 23]). Following reference [26] to reflect low audit quality, audit tenure equals one if the audit tenure is less than or equal to three years; and 0 otherwise. The study used the measurement of client complexities from a previous study by reference [7] using the client complexities score formulated with the  $\text{COMPLEX} = 1 + C1 + C2 + C3 + C4$  equation (please

see the details in reference [7]. COVID is a dummy variable, equal to 1 if the year is 2020; and 0 if otherwise. Other variables are presented in Appendix.

## RESULTS

### Statistic descriptive

Table 2 shows that the proportion of MAO is 0.5, indicating that from 982 observations, 50 percent of audit opinions are modified, and 50 percent are unmodified. The LOWTEN variable has a mean of 0.470, indicating that the average observation has an audit tenure of less than or equal to three years. The NBIG4 variable has a proportion of 71.18 percent, indicating that most of the observations were audited by non-Big Four audit firms. Finally, the COMPLEX variable has a mean of 1.875 on a scale of 5, indicating that the average of observations does not have a high level of complexity.

**Table 2. Statistic Descriptive**

Variable	Mean	Std. Dev.	Min	Max
MAO	0.5	0.500	0	1
LOWTEN	0.470	0.499	0	1
NBIG4	0.712	0.453	0	1
COMPLEX	1.876	0.806	1	4
COVID	0.330	0.470	0	1
SGMT	1.126	0.278	0	1.732
FOREIGN	0.862	2.840	0	46
IR	0.287	0.210	0	1.180
LOSS	0.313	0.464	0	1
ROA	0.007	0.150	-1.538	0.921
LEV	1.352	3.381	-7.940	57.157
QUICK	1.646	2.641	0.000	39.662
SIZE	14.754	1.726	8.561	19.679
GROWTH	-1.076	33.183	-1039.813	2.303
Source: Stata output. N= 982 firm-years observations. All continuous variables are winsorized at 1% and 5%.				

### Audit tenure, non-Big Four, and modified audit opinion

Model 1 or Eq. (1) has Wald Chi2 of 126.11, significant at the probability level <0.001, with a Pseudo R<sup>2</sup> of 0.1068 or 10.68%. Table 3 shows the results of hypothesis testing on the first model in this study which was used to test hypotheses H1 and H2. The LOWTEN variable has a coefficient of 0.471, positive and significant, with a probability value of 0.001. These results indicate that low audit tenure has a positive tendency to issue a modified audit opinion at a significance level of 1%. The NBIG4 coefficient value is 0.937, positive and significant at the 1% level (prob. = 0.000 < 0.001). These results indicate that the size of non-big four audit firms positively influences the tendency to issue a modified audit opinion.

The results of this study differ from our hypothesis statement H1 that low audit quality, measured by low audit tenure, where the audit period is less than or equal to three years, is suspected of causing a decline in audit quality, reflected in the reluctance to issue modified audit opinions. The results of this study also differ from the predictions of hypothesis statement

H2 that non-Big four auditors are reluctant to issue modified audit opinions. We, therefore, reject the hypotheses H1 and H2.

**Table 3. Hypotheses Testing Results of H1 and H2**

MODEL 1			
Independent Variable	Predicted Sign	Dependent Variable (MAO)	
		Coef.	p-value
CONSTANT	?	0.093	0.911
LOWTEN	-	0.471***	0.001
NBIG4	-	0.937***	0.000
SGMT	+	-0.377	0.143
FOREIGN	+	0.012	0.590
IR	+	-0.866**	0.012
LOSS	+	0.799***	0.000
ROA	-	-0.861	0.195
LEV	-	0.010	0.572
QUICK	-	0.010	0.703
SIZE	+	-0.040	0.392
GROWTH	-	-0.117	0.550
Wald Chi2			126.11
p-value			<0.001
Pseudo R2			0.1068
N			982
Source: Stata output results; ***,** significant at 1% and 5%, respectively, with robust standard errors.			

### The moderating role of client complexities in the relationship between low audit quality and modified audit opinion

Model 2 has an Wald chi2 value of 130.80, significant at the 1% level (probability= 0.000 < 0.001) and has a Pseudo R<sup>2</sup> of 0.1103 or 11.03%. Table 4 shows the results of hypothesis testing on the second model (Eq. 2) in this study, which was used to test H3 and H4. The interaction variable LOWTENXCOMPLEX is used to answer hypothesis H3 regarding the moderating effect of client complexities on the relationship between low audit tenure and modified audit opinion. Meanwhile, the interaction variable NBIG4XCOMPLEX is used to answer hypothesis H4 regarding the moderating effect of client complexities on the relationship between non-big four audit firms and modified audit opinion.

**Table 4. Hypotheses Testing Results of H3 and H4**

MODEL 2			
Independent Variable	Predicted Sign	Dependent Variable (MAO)	
		Coef.	p-value
CONSTANT	?	0.755	0.678
LOWTEN	-	0.150	0.678
NBIG4	-	0.424	0.351
COMPLEX	?	-0.126	0.504

MODEL 2			
Independent Variable	Predicted Sign	Dependent Variable (MAO)	
		Coef.	p-value
LOWTENXCOMPLEX	?	0.170	0.344
NBIG4XCOMPLEX	?	0.256	0.219
SGMT	+	-0.390	0.132
FOREIGN	+	0.012	0.580
IR	+	-0.895***	0.009
LOSS	+	0.761***	0.000
ROA	-	-0.847	0.208
LEV	-	0.005	0.766
QUICK	-	0.013	0.620
SIZE	+	-0.063	0.204
GROWTH	-	-0.242	0.257
Wald Chi2			130.80
p-value			<0.001
Pseudo R2			0.1103
N			982
Source: Stata output results; *** significant at 1% with robust standard errors.			

The study's statistical results found that the LOWTENXCOMPLEX coefficient is 0.170, with a probability of 0.344, not significant at the 0.10 level. At the same time, the coefficient of NBIG4XCOMPLEX is 0.256, with a probability of 0.219, which is also not significant at the 10% level.

The results of this test indicate that the hypothesis statement states that the complexity of client operations has a moderating role that strengthens the negative relationship between low audit tenure (H3) and non-Big Four firms (H4) with a tendency to issue modified audit opinions, is not proven. In other words, clients who have operating complexity or do not have operational complexity have no impact on the relationship between low audit quality and the tendency to issue modified audit opinions. We, therefore, reject hypotheses H3 and H4.

### The moderating role of COVID-19 toward the relationship between low audit quality and modified audit opinion

Model 3 (Eq. 3) has a Wald Chi2 of 133.79, with a probability value of 0.000 (<0.001), significant at the 1% level, and a Pseudo R<sup>2</sup> of 0.1125 or 11.25%.

**Table 5. Hypotheses Testing Results of H5-H8**

MODEL 3			
Independent Variable	Pred. Sign	Dependent Variable (MAO)	
		Coef.	p-value
CONSTANT	?	0.829	0.369
LOWTEN	-	-0.0283	0.950
NBIG4	-	0.468	0.420
COMPLEX	?	-0.094	0.693
COVID	+	-0.228	0.783
LOWTENXCOMPLEX	?	0.260	0.245

MODEL 3			
Independent Variable	Pred. Sign	Dependent Variable (MAO)	
		Coef.	p-value
NBIG4XCOMPLEX	?	0.179	0.497
LOWTENXCOVID	-	0.584	0.461
NBIG4XCOVID	-	-0.089	0.923
COMPLEXXCVID	?	-0.077	0.834
LOWTENXCOMPLEXXCVID	?	-0.333	0.403
NBIG4XCOMPLEXXCVID	?	0.229	0.582
SGMT	+	-0.406	0.118
FOREIGN	+	0.012	0.569
IR	+	-0.901***	0.009
LOSS	+	0.769***	0.000
Wald Chi2			133.79
p-value			<0.001
Pseudo R2			0.1125
N			982
Source: Stata output results; *** significant at 1% level with robust standard errors.			

The interaction variable LOWTENXCOVID is used to answer hypothesis H5 regarding the relationship between low audit tenure and modified audit opinion in the COVID-19 era. Meanwhile, NBIG4XCOVID is used to answer hypothesis H6 regarding the relationship between non-big four and modified audit opinion in the COVID-19 era. Table 5 reports the coefficient of the variable LOWTENXCOVID is 0.584, not significant at the 10% level (prob. = 0.461 > 0.10). While the coefficient of NBIG4XCOVID is -0.089, also not significant at the 10% level (prob. = 0.923 > 0.10). The results of these hypothesis tests find no evidence that low audit tenure, both in low tenure and non-Big Four firms, has a higher decreased audit quality in the COVID-19 era.

### **The moderating role of client complexities in the relationship between low audit quality and modified audit opinion in the COVID-19 era**

Table 5 reports the interaction variable LOWTENXCOMPLEXXCVID to answer hypothesis H7 regarding the effect of the moderating role of client complexities on the relationship between low audit tenure and modified audit opinion in the COVID-19 era and NBIG4XCOMPLEXXCVID to answer hypothesis H8 regarding the effect of the moderating role of client complexities on the relationship between non-big four with modified audit opinion in the COVID-19 era.

The test results show that the LOWTENXCOMPLEXXCVID coefficient is -0.333, not significant at the 10% level (prob.= 0.403 > 0.10), and the NBIG4XCOMPLEXXCVID coefficient is also insignificant at the 10% level. The results of these tests reject the hypothesis statement (H7 and H8), which states that client complexities have a worsening moderating effect on the relationship between non-Big Four and low audit tenure toward modified audit opinion in the COVID-19 era.



## **DISCUSSION**

### **Audit tenure, non-Big Four, and modified audit opinion**

This study finds evidence that low audit quality, measured by low audit tenure and non-Big Four, has a positive relationship with modified audit opinion. This result is different from previous studies, which found that shorter audit tenure can threaten audit quality because the auditor, in this case, the audit partner, has not obtained specific information regarding the client business and industry that is adequate that affect the audit process. The aim of auditors in performing the audit process is to obtain sufficient and appropriate audit evidence to provide a basis for the audit opinion. An alternative explanation for this finding may be because this study does not differentiate between industry-specialized and non-industrial-specialized auditors. Reference [24] found that although audit tenure is getting shorter, audit quality may not decline because auditors have specializations in certain industries.

This study also does not distinguish whether there are non-Big Four auditors in the study sample categorized as Mid-Tiers or Second-Tiers. Studies in America found that after the Enron case in 2002, there was an increase in audit quality among Mid-Tier or Second-Tier, so previous studies concluded that the audit quality of Mid-Tiers and Second-Tiers is equivalent to the Big Four audit firms [25].

### **The moderating role of client complexities in the relationship between low audit quality and modified audit opinion**

This study has not found evidence that the level of client complexity has a moderating role that strengthens the negative relationship between low audit tenure and non-Big Four on modified audit opinion. Based on descriptive statistics, the level of client complexity from the profile of all study observations has an average of 1.876 from the highest scale of 5. In other words, the client's level of complexity from the observations is low, so the test results are irrelevant.

### **The moderating role of COVID-19 toward the relationship between low audit quality and modified audit opinion**

This study has not found evidence that during the Covid-19 period, audit quality decreased, both in short tenure audits and non-Big Four audits. An alternative explanation for this finding is that it might be because the Covid-19 pandemic only started in March 2020, so it may have influenced the study results.

### **The moderating role of client complexities in the relationship between low audit quality and modified audit opinion in the COVID-19 era**

This study also has not found evidence that during the Covid-19 period, audit quality, both in short tenure audits and non-Big Four audit firms, decreased with increasingly complex clients. An alternative explanation for this finding is the possibility that the Covid-19 pandemic just started in March 2020 and that the sample profile in this study has a low complexity level, so it becomes irrelevant and may affect the study results.

## **CONCLUSION**

First, this study wants to examine the relationship of low audit quality represented by low audit tenure engagement partners and non-Big Four audit firms with the output of the financial statement audit, namely modified audit opinion. Second, this study examines the moderating role of the client's level of complexity on the relationship between low audit quality and modified audit opinion. Third, this study examines the relationship between low audit quality and modified audit opinion in the COVID-19 era. Finally, this study examines the moderating

role of client complexity on the relationship between low audit quality and modified audit opinion in the COVID-19 era.

The study's results found evidence different from the predicted hypothesis, which found a positive relationship between low audit quality represented by low audit tenure and non-Big Four with modified audit opinion. However, this study found no evidence of a moderating role of client complexity in the relationship between low audit quality and modified audit opinion, found no evidence of a moderating role of COVID-19 in the relationship between low audit quality and modified audit opinion, and the level of client complexity on the relationship between low audit quality and modified audit opinion during the COVID-19 period.

The results of this study have implications for regulators, standard setters, and other stakeholders that Big Four firms do not solely dominate audit quality, so it is necessary to thoroughly evaluate audit quality criteria in Indonesia, including policies and rules regarding the quality of audit partner engagement.

Future studies need to investigate audit quality proxies other than the Big Four audit firms, for example, the audit quality of Mid-Tiers and Second-Tiers audit firms, e.g., [25].

## REFERENCES

- [1] D.A.D. Nasution, Erlina, and I. Muda, "Dampak pandemi COVID-19 terhadap perekonomian Indonesia", *Jurnal Benefita*, vol. 5, no. 2, pp. 212–224, 2020.
- [2] E.D. Suwandi, "Kualitas audit perusahaan pada masa pandemic Covid 19 (Studi literatur)", *Jurnal Akuntansi Keuangan Dan Bisnis*, vol. 14, no. 1, pp. 27–36, 2021.
- [3] KPMG International, "COVID-19 – Financial reporting implications", *COVID-19 – Accounting and disclosure implications - KPMG Global* (home.kpmg), 2020.
- [4] PwC, *Accounting implications of the effects of coronavirus*, pp. 1–9, 2020. <https://www.pwc.com/gx/en/services/audit-assurance/assets/accounting-implications-effects-coronavirus.pdf>
- [5] S. Nurhayati, and S.D. Prastiti, "Pengaruh rotasi KAP, audit tenure, dan reputasi KAP terhadap kualitas audit pada perusahaan manufaktur," *Jurnal Akuntansi Aktual*, vol. 3, no. 2, pp. 165–174, 2015.
- [6] A.N. Hasanah, and M.S. Putri, "Pengaruh ukuran perusahaan, audit tenure terhadap kualitas audit," *Jurnal Akuntansi*, vol. 5, no. 1, pp. 11–21, 2018.
- [7] F.A. Gul, S.M. Ma, and K. Lai, "Busy auditors, partner-client tenure, and audit quality: evidence from an emerging market", *Journal of International Accounting Research*, 16(1), 83–105, 2017.
- [8] D. Ayuningtyas, *Gara-gara lapkeu, deretan KAP ini malah kena sanksi OJK. CNBC Indonesia*, p. 1. <https://www.cnbcindonesia.com/market/20190809123549-17-90910/gara-gara-lapkeu-deretan-kap-ini-malah-kena-sanksi-ojk>, 2019 (August 9).
- [9] A.T. Craswell, J.R. Francis, and S.L. Taylor, "Auditor brand name reputations and industry specializations", *Journal of Accounting and Economics*, vol. 20, no. 3, pp. 297–322, 1995. [https://doi.org/10.1016/0165-4101\(95\)00403-3](https://doi.org/10.1016/0165-4101(95)00403-3)

- [10] C.L. Becker, M.L. Defond, J. Jiambalvo, and K.R. Subramanyam, "The effect of audit quality on earnings management," *Contemporary Accounting Research*, vol. 15, pp. 1-24, 1998.
- [11] J.R. Francis, J.R., "What do we know about audit quality?", *The British Accounting Review*, 36, 345-368, 2004.
- [12] I.P.Y. Darmawan, and N.L.S. Widhiyani, N. L. S., "Pengaruh ukuran perusahaan, kompleksitas operasi perusahaan dan komite audit pada audit delay," *E-Jurnal Akuntansi Universitas Udayana*, vol. 21, no. 1, pp. 254–282, 2017.
- [13] G.A.N.P. Dewi, and I.D.G.D. Saputra, "Pengaruh kompleksitas operasi, kontinjensi, pergantian auditor pada audit report lag dengan spesialisasi auditor sebagai pemoderasi", *E-Jurnal Akuntansi Universitas Udayana*, 21(2), 912–941, 2017.
- [14] I.M.D.K. Ratha, and I. W. Ramantha, "Pengaruh Due Professional Care, Akuntabilitas, Kompleksitas Audit, Dan Time Budget Pressure Terhadap Kualitas Audit," *E-Jurnal AKuntansi*, 13(1), 311–339, 2015.
- [15] M. Muslim, M.F.A. Pelu, and K.S. Mentari, K. S., "Pengaruh kompetensi auditor, tekanan ketaatan, dan kompleksitas tugas terhadap audit judgment", *Bongaya Journal for Research in Accounting (BJRA)*, vol. 1, no. 2, pp. 08–17, 2018.
- [16] A.H. Khasani, A. Amilin, A., and C. Anwar, "Tenure audit, reputasi auditor dan kualitas audit pada perusahaan manufaktur : analisis kompleksitas operasi sebagai pemoderasi", *Jurnal Riset Akuntansi & Perpajakan (JRAP)*, vol. 5, no. 1, pp. 1–13. <https://doi.org/10.35838/jrap.v5i01.165>
- [17] A. Habib, "A meta-analysis of the determinants of modified audit opinion decisions," *Managerial Auditing Journal*, vol. 28, no. 3, pp. 184–216, 2013. <https://doi.org/10.1108/02686901311304349>
- [18] P.H. Cahyaningrum, and F. Fitriany, F. "Pengaruh modified audit opinion terhadap borrowing cash flow dan investment cash flow", *Jurnal Akuntansi Dan Keuangan Indonesia*, vol. 10, no. 1, pp. 80–101, 2013.
- [19] Z. Lin, Y. Jiang, and Y Xu, "Do modified audit opinions have economic consequences? Empirical evidence based on financial constraints. *China Journal of Accounting Research*, vol. 4, no. 3, pp. 135–154, 2011.
- [20] H.Y. Chi, and C.L. Chin, "Firm versus partner measures of auditor industry expertise and effects on auditor quality. *Auditing: A Journal of Practice & Theory*, vol. 30, no. 2, pp. 201–229, 2011. <https://doi.org/10.2308/ajpt-50004>
- [21] J.P.H. Fan, and T.J. Wong, "Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of Accounting Research*, vol. 43, no. 1, pp. 35–72, 2005. <https://doi.org/10.1111/j.1475-679x.2004.00162.x>
- [22] L.E. DeAngelo, "Auditor Size and Audit Quality," *Journal of Accounting and Economics*, vol. 3, no. 3, pp. 183–199, 1981.

- [23] A. Herusetya, "Analisis kualitas audit terhadap manajemen laba akuntansi: studi pendekatan composite measure versus conventional measure," *Jurnal Akuntansi Dan Keuangan Indonesia*, vol. 9, no. 2, pp. 117–135, 2012. <https://doi.org/10.21002/jaki.2012.08>
- [24] F.A. Gul, S.Y.K. Fung, and B. Jaggi, "Earning quality: some evidence on the role of auditor tenure and auditor's industry expertise," *Journal of Accounting and Economics*, 47, 265-287, 2009.
- [25] J.P. Boone, I.K. Khurana, and I.I. Raman, I.I., "Do the Big 4 and the Second-tier Firms Provide Audits of Similar Quality?," *Journal of Accounting and Public Policy*, vol. 29, pp. 330-352, 2010.
- [26] V.E. Johnson, I.K. Khurana, I. K., J.K. Reynolds, "Audit-firm tenure and the quality of financial reports. *Contemporary Accounting Research*, vol. 19, no. 4, pp. 637–660, 2002.