

HOW DOES AUDIT COMPLEXITY AFFECT AUDIT REPORT LAG? EMPIRICAL EVIDENCE FROM INDONESIAN PUBLICLY LISTED COMPANIES

Emir Surya Rahmajati¹, Ickuk Rangga Bawono²

¹²Department of Accounting, Universitas Jenderal Soedirman, Indonesia

*Email corresponding author: icore@unsoed.ac.id

Abstract

This study aims to examine the effect of audit complexity, as reflected in industry type, number of subsidiaries, and business segmentation differences, on audit report lag. In addition, this study investigates whether audit quality moderates the relationship between audit complexity and audit report lag. This study employs a quantitative research approach using secondary data obtained from audited annual financial statements of companies listed on the Indonesia Stock Exchange (IDX) during the 2013–2023 period. The sample consists of 79 companies included in the IDX80 index, resulting in 869 firm-year observations. The data were analyzed using panel data regression analysis with SPSS 25. The findings indicate that companies operating in the financial industry tend to experience shorter audit report lag compared to non-financial companies. In contrast, companies with a larger number of subsidiaries tend to have longer audit report lag. Furthermore, companies with similar business segmentation between parent companies and subsidiaries tend to experience shorter audit report lag than companies with different business segmentation. The results also reveal that audit quality, proxied by Big Four auditors, significantly reduces audit report lag in financial companies. However, audit quality does not significantly moderate the relationship between the number of subsidiaries and audit report lag, nor the relationship between business segmentation differences and audit report lag. This study contributes to the audit report lag literature by examining audit complexity through multiple dimensions, namely industry type, number of subsidiaries, and business segmentation differences, while also incorporating audit quality as a moderating variable in the Indonesian context.

Keywords: Audit Report Lag, Audit Complexity, Audit Quality, Industry Type, Number of Subsidiaries, Business Segmentation, Big Four Auditors, Indonesia Stock Exchange

INTRODUCTION

Financial reports represent management's accountability for the stewardship of entity resources entrusted to them by investors. In addition, financial reports serve as a medium of communication between management and shareholders (Ezat et al., 2021; Fadhlani & Romaisyah, 2020). Shareholders have the right to obtain information regarding the company's financial condition and operating performance. Such information is utilized by shareholders to evaluate management performance and to make decisions regarding whether the company provides benefits to them (Abdillah et al., 2019; Atmojo & Darsono, 2017; Kaaroud et al., 2020; Lai et al., 2020).

Based on the Decree of the Chairman of the Capital Market and Financial Institution Supervisory Agency Number KEP-346/BL/2011 concerning the Submission of Periodic Financial Reports by Issuers or Public Companies, every publicly listed company is required to submit periodic financial reports to the Capital Market and Financial Institution Supervisory Agency (Bapepam) and disclose them to the public no later than the end of the third month following the financial reporting date.

According to compliance theory, reliability and timeliness are important characteristics of accounting information (Jaggi & Tsui, 1999; Kaaroud et al., 2020; Vuco & Cular, 2014). Delays in the submission of financial reports may reduce the relevance and usefulness of the information contained in those reports (Ariningtyastuti & Rohman, 2021; Atmojo & Darsono, 2017; Chan et al., 2016). Timeliness is also considered an important mechanism for reducing information asymmetry and minimizing the spread of rumors regarding a company's financial condition and performance (Al-Mulla & Bradbury, 2020; Azubike & Aggreh, 2014; El-Bannany, 2008). Furthermore, based on lending credibility theory, the audit process aims to enhance the credibility of financial reports in order to strengthen stakeholder confidence.

However, the timely submission of audited annual financial reports remains a challenge for several companies listed on the Indonesia Stock Exchange. From 2016 to 2023, the number of companies that delayed the submission of their audited financial statements consistently exceeded 60 companies each year. This condition is presented in Table 1.

Table 1. Number of Companies Delaying the Submission of Audited Financial Statements

Years	Amount
2016	78
2017	69
2018	70
2019	64
2020	64
2021	88
2022	68
2023	129

Source: Indonesian Stock Exchange, 2016-2023

The phenomenon of delays in the submission of audited financial reports is commonly referred to as audit report lag (ARL) (Lee & Jahng, 2008). Audit report lag is defined as the time interval, measured in days, between the end of a company's fiscal year and the date on which the audit report is signed (Abdillah et al., 2019; Abernathy et al., 2017; Hassan, 2016). ARL has become an important measure globally and has attracted considerable attention from investors, managers, regulators, auditors, and academics for several reasons (Escaloni & Mareque, 2021). In particular, ARL plays a significant role in addressing the information needs of capital market participants regarding audited financial statements (Abernathy et al., 2017; Afify, 2009; Ahmed & Che-Ahmad, 2016). Consequently, more timely audited financial reports are generally associated with more efficient audit processes (Stewart & Cairney, 2019).

Delays in the presentation of financial reports may slow the dissemination of company information and generate negative signals for investors, potentially affecting their investment decisions (Ariningtyastuti & Rohman, 2021; Ezat et al., 2021). Therefore, qualified resources are required to effectively carry out the functions and responsibilities within a company.

Previous studies have identified audit report lag (ARL) as one of the most observable indicators in assessing the timeliness of financial reporting (Abdullah, 2006; Afify, 2009; Ashton et al., 1989; Owusu-Ansah, 2005; Sultana et al., 2015). Various studies have also examined several factors influencing audit report lag, including company characteristics (Abdillah et al., 2019; Ariningtyastuti & Rohman, 2021; Ezat et al., 2021; Jaggi & Tsui, 1999), audit committee characteristics (Atmojo & Darsono, 2017; Baatwah et al., 2019; Kaaroud et al., 2020; Vuco et al., 2014), auditor characteristics (Abdillah et al., 2019; Ariningtyastuti & Rohman, 2021; Ezat et al., 2021; Hassan, 2016; Kawshalya & Srinath, 2019; Vuco et al., 2014), board meetings (Ahmed & Che-Ahmad, 2016; Kaaroud et al., 2020), board size (Azubike & Aggreh, 2014; Hassan, 2016; Ishaku & Abdulkarim, 2021; Kawshalya & Srinath, 2019), and financial ratios (Al-Mulla & Bradbury, 2020; Ariningtyastuti & Rohman, 2021; Baldacchino et al., 2016; Fernaldy & Chrisnanti, 2022; Vuco et al.,

2014). However, studies examining audit report lag from the perspective of audit complexity remain relatively limited.

Audit complexity refers to the level of complexity encountered by auditors during the audit process (Wuttichindanon & Issarawornrawanich, 2020). Audit complexity may arise from various factors, including the number of subsidiaries or branches, the accounting standards applied, company operations, industry type, and the volume of transactions (Garcia et al., 2021). Each company (auditee) possesses distinct characteristics, resulting in different levels of risk and requiring different audit procedures. Likewise, auditors as practitioners also possess varying levels of skills and expertise in conducting audits. Previous studies have identified complexity as an important factor affecting reporting timeliness decisions (Jaggi & Tsui, 1999; Ng & Tai, 1994; Sengupta, 2004). It is therefore reasonable to assume that companies with a large number of subsidiaries tend to have more complex accounting systems and audit processes, which may lead to longer reporting delays (Habib & Bhuiyan, 2011; Hassan, 2016).

Furthermore, several studies have examined the effect of audit quality on audit report lag (Rusmin & Evans, 2017; Durand, 2019; Ukoma, 2020; Bratten et al., 2019). Audit quality refers to the auditor's ability to detect material problems or misstatements by applying appropriate audit methods and standards (Davidson & Neu, 1993). Therefore, audit quality is employed as a moderating variable in this study to examine whether it strengthens or weakens the relationship between audit complexity and audit report lag. This article is organized into four main sections.

The first section reviews the relevant literature related to audit report lag and develops several research hypotheses. The second section describes the research methodology employed in this study. The third section presents the results obtained from the statistical analysis. Finally, the last section summarizes the main findings and conclusions of the study.

Based on the background and literature review presented above, this study seeks to address several research questions related to the relationship between audit complexity, audit quality, and audit report lag. Specifically, this study examines whether audit complexity influences audit report lag among companies listed on the Indonesia Stock Exchange. In addition, this study investigates whether audit quality moderates the relationship between audit complexity and audit report lag.

In line with the research questions, the objectives of this study are to analyze the effect of audit complexity on audit report lag among companies listed on the Indonesia Stock Exchange. Furthermore, this study aims to examine the moderating role of audit quality in the relationship between audit complexity and audit report lag.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

LITERATURE REVIEW

Compliance Theory

Compliance Theory introduced by Stanley Milgram (1963) explains that individuals tend to obey rules, instructions, or authority based on personal interests or moral obligations. According to Tom R. Tyler (1990), organizations comply with regulations because such rules are considered legitimate in governing organizational behavior. In the auditing context, auditors are required to comply with auditing standards and regulations to ensure that the audit process is conducted properly and in accordance with professional procedures. Compliance with these standards reflects auditors' professionalism and audit quality while also protecting them from potential sanctions arising from violations of professional standards.

Lending Credibility Theory

Lending Credibility Theory proposed by Michael Porter (1990) states that the primary purpose of an audit is to enhance the credibility and reliability of financial statements. Audited

financial reports are considered more trustworthy than unaudited reports, thereby increasing investor confidence in the company's financial information. Higher investor confidence is expected to support more informed investment decisions and encourage additional investment in the company. This theory is relevant to the present study because the timeliness of audited financial reporting reflects both the quality of financial reports and the professionalism of the company in fulfilling its reporting responsibilities (Suyono, 2022).

Audit Report Lag

Audit report lag (ARL) is defined as the number of days required by the auditor to complete the audit process after the company's fiscal year-end date (Carslaw & Kaplan, 1991; Bamber et al., 1993). Research on ARL is important because delays in audit completion may affect the timeliness and usefulness of financial statement information. In addition, understanding the factors influencing ARL can provide insight into audit efficiency. The primary objective of auditing financial statements is to ensure that the financial statements are fairly presented and free from material misstatements. Therefore, investors generally prefer audited financial reports to be issued within a relatively short period of time.

Audit Complexity

Audit complexity refers to an individual's perception regarding the level of difficulty encountered in performing audit assignments. Such perceptions may vary among auditors, as a task considered easy by one auditor may be perceived as difficult by another. Audits become more complex as task difficulty and task variability increase. According to Bonner (1994), the examination of audit complexity is important because complexity may affect auditors' performance, influence the effectiveness of decision-making tools and techniques, and help auditors identify appropriate solutions during the audit process. Increasing audit complexity may also increase the risk of misinterpretation and audit errors. Therefore, auditors are required to maintain audit quality and professionalism throughout the audit process.

Audit Quality

Audit quality is a concept that describes the auditor's ability to detect and report material misstatements in financial statements (Davidson & Neu, 1993). Audited financial statements serve as a credible source of information for stakeholders, and audit firms are expected to provide assurance regarding the reliability of the audited reports (Ezat et al., 2021). Therefore, public accounting firms must conduct the audit process effectively and efficiently in order to maintain audit quality. However, audit quality is considered multidimensional and inherently difficult to observe directly; consequently, there is no single universally accepted proxy for measuring audit quality.

HYPOTHESIS DEVELOPMENT

The audit process is closely associated with a company's internal control system, as the nature and structure of internal control may determine the level of audit complexity. Ronald T. Fisher (1998) states that a company's control structure is influenced by its organizational form. Consequently, auditors must consider the company's internal control structure to ensure that the audit process is conducted effectively. Factors such as the number and geographical distribution of operating units or branches, product diversification, and market expansion may increase the complexity of a company's operations and consequently affect audit completion time. Since companies possess varying levels of operational complexity, the audit procedures and audit completion processes may also differ accordingly (Chan et al., 2016; Hassan, 2016).

Relationship between Industry Type and Audit Report Lag

Based on lending credibility theory, the primary objective of an audit is to ensure the credibility and reliability of a company's financial statements. The type of industry in which a company operates may influence the complexity of transactions encountered by auditors during

the audit process. This is because industry type affects operational activities, transaction characteristics, and the level of inventory owned by the company. Previous studies generally classify industries into two categories, namely financial and non-financial companies (Afify, 2009; Anuar & Kamarudin, 2003; Baldacchino et al., 2016; Ferreira & Morais, 2020; Lee & Jahng, 2008; Stewart & Cairney, 2019; Velte, 2020; Wafa & Mohamed, 2011; Walker & Hay, 2013). Companies operating in the financial sector tend to experience shorter audit report lag because they generally maintain lower levels of inventory or even no inventory at all (Anuar & Kamarudin, 2003; Hersan & Fetry, 2020).

According to compliance theory, auditors are required to conduct audits in accordance with auditing standards and relevant regulations. The adoption of different accounting measurement, valuation, and disclosure policies across industries may increase audit complexity and potentially delay audit completion (Afify, 2009). Furthermore, companies with lower inventory proportions are likely to experience shorter audit delays because auditors face fewer complicated and time-consuming audit procedures related to inventory examination (Carslaw & Kaplan, 1991; Anuar & Kamarudin, 2003). Based on the explanation above, the first hypothesis of this study is formulated as follows:

H1a: Audit report lag will be shorter for companies in the financial sector than for companies in the non-financial sector.

Relationship between Subsidiary Number and Audit Report Lag

Higher company complexity generally requires more time to complete the audit process (El-Bannany, 2008). Companies with a large number of subsidiaries tend to have more operating units, transactions, and accounting records that must be examined by the auditor (Ahmed & Che-Ahmad, 2016). As the number of subsidiaries increases, the complexity of consolidated financial statements also increases, causing auditors to require more time to complete the audit process (Ariyani & Budiarta, 2014). Consequently, auditors face greater challenges in coordinating and verifying financial information across multiple subsidiaries.

Based on compliance theory, auditors are required to comply with auditing standards, including SA 600 concerning special considerations in the audit of group financial statements. Previous studies have identified the number of subsidiaries as an important factor affecting audit timeliness (Habib & Bhuiyan, 2011; Handoyo & Maulana, 2019; Jaggi & Tsui, 1999; Sengupta, 2004; Susanto Salim, 2022; Gabriella, 2021; Walker & Hay, 2013). This study follows the approach of Hassan (2016) and Habib & Bhuiyan (2011) by using the number of subsidiaries as a proxy for company complexity and diversification. Companies with a greater number of subsidiaries are likely to have more complex accounting systems, which may result in longer audit completion periods (Rusmin & Evans, 2017). Based on the explanation above, the second hypothesis of this study is formulated as follows:

H1b: Audit report lag will be longer for companies with a greater number of subsidiaries.

Relationship between Segmentation Differences of Parent Companies and Subsidiaries and Audit Report Lag

In general, more complex tasks require more time to complete and consequently require longer audit completion periods. Audit complexity may arise from factors such as industry type and the number of subsidiaries owned by a company (Chan et al., 2016; El-Bannany, 2008). In addition, differences in business segmentation between parent companies and subsidiaries may further increase audit complexity due to variations in accounting systems, operational activities, and accounting standards applied across entities (Handoyo & Maulana, 2019). Companies with diverse business segments also require more time to consolidate financial statements, which may extend the audit completion process.

According to compliance theory and lending credibility theory, auditors are required to conduct audits in accordance with applicable auditing standards and regulations to maintain audit

quality and credibility. The increasing diversity of company operations and business segments may therefore increase the complexity of audit work and lengthen audit report lag (El-Bannany, 2008). Several previous studies have used differences in industry segmentation between parent companies and subsidiaries as indicators of audit complexity (Abdillah et al., 2019; Anuar & Kamarudin, 2003; Chan et al., 2016; El-Bannany, 2008; Knechel & Payne, 2001; Robert Knechel & Sharma, 2012; Sengupta, 2004). Based on these arguments, the third hypothesis of this study is formulated as follows:

H1c: Audit report lag will be shorter for companies with similar business segmentation between parent companies and subsidiaries.

Relationship between Audit Quality, Audit Complexity, and Audit Report Lag

In assessing audit risk, auditors are required to understand the client's business environment and determine the appropriate scope of audit procedures. Therefore, the selection of a Public Accounting Firm (KAP) may influence audit report lag (Gabriella, 2021). Based on compliance theory, all auditors, whether affiliated with Big Four or non-Big Four accounting firms, are required to conduct audits in accordance with applicable auditing standards and regulations. However, larger accounting firms are generally expected to possess more efficient audit planning, greater resources, advanced technology, and more qualified personnel. In addition, large accounting firms often employ auditors with specific industry expertise (Ashton et al., 1989; Chan et al., 2016; Leventis et al., 2005). Industry specialist auditors tend to have better understanding and experience in auditing companies within particular industries, enabling them to resolve complex accounting issues more efficiently than non-specialist auditors (Handoyo & Maulana, 2019; Reheul et al., 2013).

Furthermore, Big Four accounting firms are generally more concerned with maintaining their professional reputation and therefore tend to provide higher audit quality and complete audit work more efficiently compared to non-Big Four firms (Abdillah et al., 2019; Ferreira & Morais, 2020; Hassan, 2016; Kane & Velury, 2004; Rusmin & Evans, 2017). Consequently, high audit quality is expected to reduce the effect of audit complexity on audit report lag. Based on the explanation above, the following hypotheses are proposed:

H2a: Audit report lag will be shorter for financial companies when moderated by audit quality.

H2b: Audit report lag will be shorter for companies with a large number of subsidiaries when moderated by audit quality.

H2c: Audit report lag will be shorter for companies with different business segmentation between parent companies and subsidiaries when moderated by audit quality.

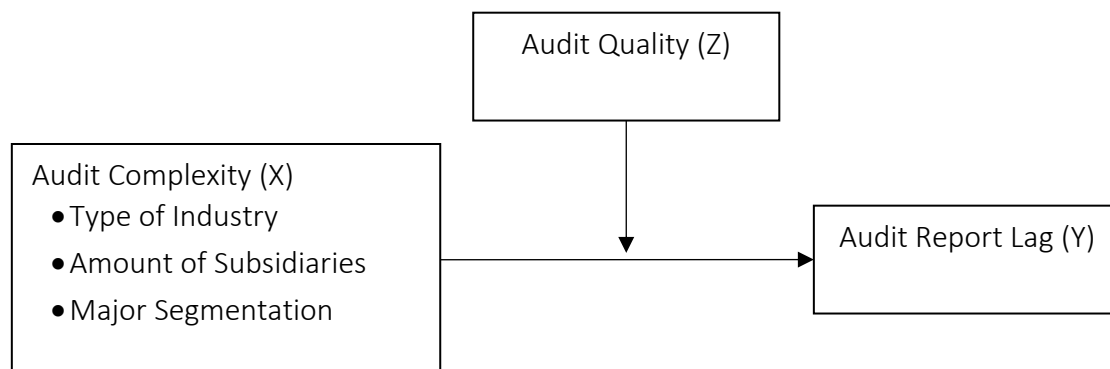


Figure 1. Research Model

RESEARCH METHODS

This study is based on the annual financial statements of companies listed on the Indonesia Stock Exchange (IDX). The following sections describe the research sample, conceptual definitions of variables, and data analysis techniques employed in this study.

Research Samples

The population of this study consists of all companies listed on the Indonesia Stock Exchange (IDX) during the 2013–2023 period. However, the sample was limited to companies included in the IDX80 index. IDX80 is a stock index consisting of the 80 most liquid stocks listed on the Indonesia Stock Exchange. The sample selection criteria included companies that were consistently included in the IDX80 index, had been listed on the IDX since at least 2010, and provided complete annual financial reports for the 2013–2023 period. Based on these criteria, a total of 79 companies, representing 869 observations, were selected as the research sample.

Type of Data and Data Collection Methods

This study employs quantitative data using secondary data sources. The data utilized in this research consist of audited annual financial statements of companies listed on the Indonesia Stock Exchange during the 2013–2023 period. The data were obtained from official sources, namely the Indonesia Stock Exchange website (www.idx.co.id) and the respective company websites.

Definition of Operational Variables

Audit Report Lag

Audit Report Lag (ARL) refers to the number of days required by the auditor to complete the audit process after the company's fiscal year-end date. ARL is measured by calculating the number of days between the company's fiscal year-end date (December 31) and the date on which the audited financial statements are signed by the auditor.

Type of Industry

Previous studies generally classify industries into two categories, namely financial and non-financial industries. The financial industry includes banking institutions, insurance companies, and financing institutions. Industry type is measured using a dummy variable, where financial companies are assigned a value of 1 and non-financial companies are assigned a value of 0.

Number of Subsidiaries

A subsidiary is a company that is wholly or partially controlled by another company (parent company) through ownership of the majority of its shares or capital. The number of subsidiaries is measured by calculating the total number of subsidiaries directly or indirectly owned by the parent company.

Major Segmentation

Company segmentation refers to the company's primary business activities and customer groups. Major segmentation is measured using a dummy variable. A value of 1 is assigned if the parent company and its subsidiaries operate within the same business segmentation, while a value of 0 is assigned if there are differences in segmentation between the parent company and its subsidiaries.

Audit Quality

Audit quality refers to the auditor's ability to detect material misstatements in the company's financial statements. In this study, audit quality is measured based on the size of the public accounting firm and classified into two categories, namely Big Four and non-Big Four accounting firms. The measurement uses a dummy variable, where companies audited by Big Four accounting firms are assigned a value of 1, while those audited by non-Big Four accounting firms are assigned a value of 0.

Data Analysis Technique

The data analysis technique in this study used panel data regression analysis. Panel data is also called pool data which is a combination of time series and cross section, micro panel data, longitudinal data, event history and cohort analysis (Gujarati, 2012). The purpose of this analysis is to determine the effect of Audit Complexity on Audit Report Lag, as well as the effect of Audit Quality as a moderating variable. This analysis uses the Software Statistical Packages for Social Science (SPSS 25) with the assumption that the slope is constant, but the intercept varies over time (Suliyanto, 2018). Therefore, the regression model is as follows:

$$ARL_{it} = \lambda_0 + \lambda_1(Dum11) + \lambda_2(Dum12) + \dots + \lambda_{11}(Dum21) + \beta_1(Ind_{it}) + \beta_2(Sub_{it}) + \beta_3(Seg_{it}) + \varepsilon_{it} (1)$$

$$ARL_{it} = \lambda_0 + \lambda_1(Dum11) + \lambda_2(Dum12) + \dots + \lambda_{11}(Dum21) + \beta_1(Ind_{it}) + \beta_2(Sub_{it}) + \beta_3(Seg_{it}) + \beta_4(AQ_{it}) + \varepsilon_{it} (2)$$

$$ARL_{it} = \lambda_0 + \lambda_1(Dum11) + \lambda_2(Dum12) + \dots + \lambda_{11}(Dum21) + \beta_1(Ind_{it}) + \beta_2(Sub_{it}) + \beta_3(Seg_{it}) + \beta_4(AQ_{it}) + \beta_5(IND * AQ)_{it} + \beta_6(Sub * AQ)_{it} + \beta_7(Seg * AQ)_{it} + \varepsilon_{it} (3)$$

The description of the regression model as follows:

- ARL : Audit Report Lag
- Ind : Type of Industry
- Sub : Amount of Subsidiaries
- Seg : Major Segmentation
- AQ : Audit Quality
- β : Coefficient Regression
- i : Cross Section Unit
- t : Time periodes
- ε : Error estimation

In addition, this study also employs several statistical analyses. First, descriptive statistical analysis is conducted to provide an overview of the characteristics of each variable used in the study. Second, correlation analysis through a multicollinearity test is performed to examine the relationship among variables, including the direction and strength of the relationship. Third, hypothesis testing is carried out using the t-test with a significance level of 5%. Finally, the coefficient of determination test is conducted to measure the extent to which the independent variables explain variations in the dependent variable.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics for each variable are presented in Table 2. Overall, the average audit report lag is 69.38 days, with a standard deviation of 22.84 days. This finding indicates that most IDX80 companies listed on the Indonesia Stock Exchange require approximately two months to complete and publish audited financial reports. In addition, the shortest audit report lag recorded in this study is 14 days, while the longest is 166 days. These findings suggest that several companies still experience substantial delays in submitting audited financial statements beyond the applicable regulatory deadline of 90 days. Therefore, the timeliness of audited financial reporting remains an important issue that requires greater attention from both companies and capital market regulators in Indonesia.

Table 2. Descriptive Statistics

Variable	N	Max	Min	Mean	Std. Dev
IND	869	1.00	.00	.2278	.41969
SUB	869	151.00	.00	20.8285	25.97175
SEG	869	1.00	.00	.6536	.47609
AQ	869	1.00	.00	.7192	.44964
ARL	869	166.00	14.00	69.3890	22.84547

Source: Data Processed

Notes: IND, Type of Industries; SUB, number of subsidiaries; SEG, Major segmentations; AQ, Audit Quality; ARL, Audit Report Lag

Corellation Analysis

Correlation analysis is used to determine the strength and direction of the relationship among variables, which is reflected in the correlation coefficient values. In this study, correlation analysis was conducted using the Bivariate Pearson correlation test in SPSS. Based on the results of the analysis, all variables were found to have correlations with one another, as indicated by positive correlation coefficient values above zero. The detailed results of the correlation analysis are presented in Table 3.

Table 3. Pearson Correlation

	IND	SUB	SEG	AQ	ARL
IND	1	-.392**	.395**	-.033	-.293**
SUB	-.392**	1	-.192**	.157**	.260**
SEG	.395**	-.192**	1	-.202**	-.235**
AQ	-.033	.157**	-.202**	1	-.141**
ARL	-.293**	.260**	-.235**	-.141**	1

Source: Data Processed

Notes: *Significant at 5 per cent or better ($p \leq 0.05$)

Multicollinearity Analysis

The multicollinearity test was conducted to determine whether there is an intercorrelation among the independent variables in the regression model. A variable is considered free from multicollinearity problems if it has a tolerance value greater than 0.10 and a Variance Inflation Factor (VIF) value lower than 10. Based on these criteria, all variables in this study are concluded to be free from multicollinearity symptoms. The results of the multicollinearity test are presented in Table 4.

Table 4. Multicollinearity Test Result

Variable	Tolerance	VIF	Information
(Constant)			
IND	.732	1.366	No Multicollinearity
SUB	.826	1.211	No Multicollinearity
SEG	.808	1.238	No Multicollinearity
AQ	.935	1.070	No Multicollinearity

Source: Data Processed

Notes: Dependent Variable: ARL

F-Test Analysis

The F-test was conducted to evaluate the overall fit of the regression model (goodness of fit). In addition, the F-test was used to determine whether the independent variables collectively explain variations in the dependent variable. A model is considered statistically significant if the significance value is less than 0.05. Based on the test results, the regression model used in this study is considered appropriate, indicating that the variables of industry type (IND), number of subsidiaries (SUB), major segmentation (SEG), and audit quality (AQ) simultaneously explain the variations occurring in audit report lag (ARL). The detailed results of the F-test are presented in Table 5.

Table 5. F-Test Analysis

Model 1	Sum of Square	Df	Mean Square	F	Sig
Regression	1114918.076	17	6759.887	17.014	.000b
Residual	338104.458	851	397.303		
Total	453022.534	868			

Source: Processed result of SPSS

Notes: Dependent Variable: ARL; Predictor: (constant), IND, SUB, SEG, AQ

Coefficient of Determination Analysis

The coefficient of determination test was conducted to measure the extent to which the independent variables explain variations in the dependent variable. This can be identified through the R-square value of the regression model. Based on the test results, the R-square value for Model 1 (before the inclusion of the moderating variable) is 0.157 or 15.7%. This indicates that the variables of industry type (IND), number of subsidiaries (SUB), and major segmentation (SEG) collectively explain 15.7% of the variation in audit report lag (ARL), while the remaining 84.3% is explained by other variables outside the model.

Furthermore, in Regression Model 2, after the inclusion of the audit quality (AQ) moderating variable, the R-square value increased to 0.196 or 19.6%. This finding indicates that the explanatory power of the variables industry type (IND), number of subsidiaries (SUB), and major segmentation (SEG) on audit report lag (ARL) increased after the inclusion of the moderating variable. In Regression Model 3, the R-square value further increased to 0.254 or 25.4% following the inclusion of the interaction variables between the independent variables and audit quality. These results indicate that audit quality (AQ) strengthens the relationship within the regression model. Based on

the significance values obtained, audit quality (AQ) can be categorized as a moderating predictor variable in the established relationship model. The detailed results of the coefficient of determination test are presented in Table 6.

Table 6. Coefficient Determination Test Result

Model	R	R ²	Adjusted R Square	SE of the Estimate	Durbin Watson
1	.396	.157	.144	21.14036	.730
2	.443	.196	.183	20.64768	.773
3	.504	.254	.239	19.93245	.829

Source: Processed result of SPSS

Notes: Predictors: (Constant), IND, SUB, SEG, AQ

Hypothesis Analysis

In general, the results of the hypothesis testing (t-test) are presented in Table 7. Based on the results, the significance values for hypotheses H1a, H1b, H1c, and H2a are all 0.000, which are lower than the significance level of 0.05, indicating that these hypotheses are accepted. Meanwhile, the significance values for hypotheses H2b (0.786) and H2c (0.386), which are greater than 0.05, indicate that both hypotheses are rejected.

Table 7. Hypothesis Test Result

Hypothesis	B	Standard error	β	t	Sig. t	Conclusion
Constant	77.709	3.899		19.929	.000	
H1a	-8.594	1.964	-.158	-4.376	.000	Accepted
H1b	.165	.030	.187	5.434	.000	Accepted
H1c	-8.349	1.646	-.174	-5.073	.000	Accepted
H2a	-29.297	3.983	-.468	-7.356	.000	Accepted
H2b	.019	.068	.020	.272	.786	Rejected
H2c	3.335	3.843	.072	.868	.386	Rejected

Source: Processed result of SPSS

Notes: Dependent Variable: ARL. *, **Significant at 5 and 10 percent significance levels, respectively

The Influence of Industry Type on Audit Report Lag

Industry type is one of the important factors influencing the audit process. Public accounting firms generally employ industry specialist auditors to facilitate the audit process, particularly when auditors already possess knowledge and understanding of the client's business environment. The findings of this study indicate that companies operating in the financial industry tend to experience shorter audit report lag compared to non-financial companies. This may occur because financial companies generally maintain little or no inventory, thereby reducing the complexity of audit procedures related to inventory examination. In contrast, non-financial companies, particularly manufacturing firms, tend to have more complex inventory systems, including raw materials, work-in-process, and finished goods inventories, which require more extensive audit procedures. The results of this study are consistent with previous studies conducted by Afify (2009), Baldacchino et al. (2016), Ferreira and Morais (2020), Velte (2020), and Walker and Hay (2013), which found that financial companies generally have shorter audit report lag than non-financial companies.

The Influence of the Number of Subsidiaries on Audit Report Lag

The greater the number of subsidiaries owned by a parent company, the higher the complexity of the audit process. The existence of multiple subsidiaries operating across different geographical locations may increase the time required by auditors to conduct audit procedures. Even when subsidiaries have been audited by other auditors, the group auditor is still required to review and evaluate the audit results before auditing the consolidated financial statements.

Consequently, the audit process may require a relatively longer period of time (Ariyani & Budiarta, 2014). The findings of this study are in line with previous studies conducted by Chan et al. (2016), El-Bannany (2008), Handoyo and Maulana (2019), Hassan (2016), and Jaggi and Tsui (1999), which concluded that companies with a larger number of subsidiaries tend to experience longer audit report lag.

The Influence of Differences in Segmentation between Parent Companies and Subsidiaries on Audit Report Lag

In general, the audit process tends to be longer for companies with numerous subsidiaries, particularly when there are differences in business segmentation between parent companies and subsidiaries. Differences in business segmentation may result in variations in accounting systems, operational activities, and accounting standards applied within the company group. Consequently, auditors are required to gain a deeper understanding of different business characteristics and apply relevant auditing standards and regulations to address such complexities, which may extend the audit completion period (El-Bannany, 2008). The findings of this study support previous research conducted by Chan et al. (2016), El-Bannany (2008), Knechel and Payne (2001), and Sengupta (2004), which concluded that differences in segmentation between parent companies and subsidiaries may lead to longer audit report lag.

The Influence of Audit Quality on the Relationship between Audit Complexity and Audit Report Lag

In this study, audit quality is proxied by the size of the public accounting firm, which is classified into Big Four and non-Big Four accounting firms. The findings indicate that companies operating in the financial industry tend to experience shorter audit report lag when audited by Big Four auditors. This may occur because Big Four accounting firms generally employ auditors with industry specialization and greater experience in auditing financial institutions, enabling them to better understand the client's business processes and conduct the audit more efficiently. In addition, financial companies tend to have subsidiaries operating within similar business segments, which may simplify the audit process. However, this study does not find significant evidence that audit quality can reduce audit report lag for companies with a large number of subsidiaries or for companies with different business segmentation between parent companies and subsidiaries. This may occur because highly complex audit engagements require auditors to perform audit procedures more carefully and in strict accordance with applicable auditing standards and regulations. Such caution is necessary to avoid audit errors and maintain the credibility, professionalism, and reputation of the auditor, particularly in highly complex audit environments.

CONCLUSION

This study provides empirical evidence regarding audit report lag (ARL) among companies included in the IDX80 index on the Indonesia Stock Exchange during the 2013–2023 period. A total of 79 companies, representing 869 firm-year observations, were selected as the research sample. The data were analyzed using panel data regression analysis. The findings of this study indicate that companies operating in the financial industry tend to have shorter audit report lag compared to companies in the non-financial industry. In contrast, companies with a larger number of subsidiaries tend to experience longer audit report lag due to the increasing complexity of the audit process.

Furthermore, companies with similar business segmentation between parent companies and subsidiaries tend to have shorter audit report lag compared to companies with different business segmentation. The findings also reveal that companies in the financial sector tend to experience shorter audit report lag when audited by Big Four accounting firms. However, audit quality, proxied by Big Four auditors, does not significantly reduce audit report lag for companies with a large number of subsidiaries or for companies with differences in business segmentation between parent companies and subsidiaries.

Recommendations for Future Research

Based on the findings of this study, several recommendations are proposed for future research. First, future studies are encouraged to employ additional proxies for measuring audit complexity, such as financial performance complexity, taxation complexity, or organizational structure complexity. Second, future researchers may classify industry types into more specific industry categories in order to provide a more comprehensive analysis. Third, future studies are also encouraged to distinguish between direct and indirect ownership when measuring the number of subsidiaries. Finally, future researchers may examine the development and trends of audit report lag over time to provide broader insights into the dynamics of audit timeliness.

BIBLIOGRAPHY

- Abdillah, M. R., Mardijuwono, A. W., & Habiburrochman, H. (2019). The effect of company characteristics and auditor characteristics to audit report lag. *Asian Journal of Accounting Research*, 4(1), 129–144.
- Abdullah, S. N. (2006). Board composition, audit committee and timeliness of corporate financial reports in Malaysia. *Corporate Ownership and Control*, 4(2 A), 33–45.
- Abernathy, J. L., Barnes, M., Stefaniak, C., & Weisbarth, A. (2017). An International Perspective on Audit Report Lag: A Synthesis of the Literature and Opportunities for Future Research. *International Journal of Auditing*, 21(1), 100–127.
- Afify, H. A. E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence from Egypt. *Journal of Applied Accounting Research*, 10(1), 56–86.
- Ahmed, M. I., & Che-Ahmad, A. (2016). Effects of corporate governance characteristics on audit report lags. *International Journal of Economics and Financial Issues*, 6(7Special Issue), 159–164.
- Al-Mulla, M., & Bradbury, M. E. (2020). The demand and supply timely financial reports. *Pacific Accounting Review*, 32(3), 335–353.
- Anuar, K., & Kamarudin, B. (2003). Audit Delay and Timeliness of Corporate Reporting: Malaysian Evidence. *Proceeding Hawaii International Conference on Business*, 1-7.
- Ariningtyastuti, S., & Rohman, A. (2021). Pengaruh Efektivitas Komite audit, Kondisi Keuangan, Kompleksitas Operasi, Profitabilitas, dan Karakteristik Auditor Eksternal Terhadap Audit Report Lag (Studi Empiris Pada Perusahaan Manufaktur di Bursa Efek Indonesia Pada Tahun 2017 - 2019). *Diponegoro Journal of Accounting*, 10(2), 1–15.
- Ashton, R. H., Graul, P. R., & Newton, J. D. (1989). Audit delay and the timeliness of corporate reporting. *Contemporary Accounting Research*, 5(2), 657–673.
- Atmojo, D. T., & Darsono. (2017). Analisis Faktor-faktor yang Berpengaruh terhadap Audit Report Lag (Studi Empiris pada Perusahaan yang Terdaftar di Bursa Efek Indonesia Tahun 2013-2015). *Diponegoro Journal Of Accounting*, 6(4), 1–15.
- Azubike, J., & Aggreh, M. (2014). Corporate Governance and Audit Delay in Nigerian Quoted Companies. *European Journal of Accounting Auditing and Finance Research*, 2(10), 22–33.

- Baatwah, S. R., Salleh, Z., & Stewart, J. (2019). Audit committee chair accounting expertise and audit report timeliness: The moderating effect of chair characteristics. *Asian Review of Accounting*, 27(2), 273–306.
- Baldacchino, P. J., Grech, L., Farrugia, K., & Tabone, N. (2016). An analysis of audit report lags in Maltese companies. *Contemporary Studies in Economic and Financial Analysis*, 98, 161–182.
- Bamber, E. M., Bamber, L. S., & Schoderbek, M. P. (1993). Audit structure and other determinants of ARL: An empirical analysis. *Auditing: A Journal of Practice & Theory*, 12(Spring), 1–23.
- Bonner, S. E. (1994). A model of the effects of audit task complexity. *Accounting, Organizations and Society*, 19(3), 213–234.
- Bratten, B., Causholli, M., & Omer, T. C. (2019). Audit Firm Tenure, Bank Complexity, and Financial Reporting Quality. *Contemporary Accounting Research*, 36(1), 295–325.
- Carslaw, C. A. P. N., & Kaplan, S. E. (1991). An Examination of Audit Delay: Further Evidence from New Zealand. *Accounting and Business Research*, 22(85), 21–32.
- Chan, K. H., Luo, V. W., & Mo, P. L. L. (2016). Determinants and implications of long audit reporting lags: Evidence from China. *Accounting and Business Research*, 46(2), 145–166.
- Davidson, R. A., & Neu, D. (1993). A Note on Audit Firm Size and Audit Quality. *Contemporary Accounting Research*, 9(2), 479–488.
- Durand, G. (2019). The determinants of audit report lag: a meta-analysis. *Managerial Auditing Journal*, 34(1), 44–75.
- El-Bannany, M. (2008). Factors affecting audit report lag in banks: The Egyptian case. *Corporate Ownership and Control*, 5(3 A), 54–61.
- Escaloni, S., & Mareque, M. (2021). Audit report lag. Differential analysis between Spanish SMEs and non-SMEs. *Sustainability (Switzerland)*, 13(22), 1–21.
- Ezat, A. N., Bekheet, M. N., Abulaila, M. D., Hendaoui, A. A., Faramawi, F. abdelrahman ahmed, & Aljuwaie, H. F. (2021). The Association Between Audit Report Lag and Audit Quality, and Audit Committee in the Saudi Arabia Context. *Elementary Education Online*, 20(6), 1522–1540.
- Fadhlan, M. A., & Romaisyah, L. (2020). Pengaruh Audit Risk, Audit Complexity, Dan Audit Expertise Terhadap Audit Report Lag. *Jurnal MEBIS (Manajemen Dan Bisnis)*, 5(1), 31–38.
- Fernaldy, I., & Chrisnanti, F. (2022). Ukuran Perusahaan Dan Faktor-Faktor Yang Memengaruhi. *E-Jurnal Akuntansi TSM* 2(3), 147–158.
- Ferreira, C., & Morais, A. I. (2020). Analysis of the relationship between company characteristics and key audit matters disclosed. *Revista Contabilidade e Financas*, 31(83), 262–274.
- Fisher, G Joseph, 1998, “Contingency Theory, Management Control System and Firm Outcomes: Past Results and Future Directions”. *Behavioural Research in Accounting* Vol. 10. Supplement: 47-64

- Garcia, J., de Villiers, C., & Li, L. (2021). Is a client's corporate social responsibility performance a source of audit complexity?. *International Journal of Auditing*, 25(1), 75–102.
- Gujarati, D.N (2012). *Basic Econometrics 4th edition review*. McGraw-Hill, Book companies, New York. Industries and development.
- Habib, A., & Bhuiyan, M. B. U. (2011). Audit firm industry specialization and the audit report lag. *Journal of International Accounting, Auditing and Taxation*, 20(1), 32–44.
- Handoyo, S., & Maulana, E. D. (2019). Determinants of Audit Report Lag of Financial Statements in Banking Sector. *Matrik : Jurnal Manajemen, Strategi Bisnis Dan Kewirausahaan*, 13(2), 142.
- Hassan, Y. M. (2016). Determinants of audit report lag: evidence from Palestine. *Journal of Accounting in Emerging Economies*, 6(1), 13–32.
- Hersan, K. Y., & Fettry, S. (2020). The Effects of Liquidity, Solvency, Type of Industry, and Auditors Switching on Audit Report Lag in LQ45 Index Companies. *Jurnal Aplikasi Ekonomi, Akuntansi, dan Bisnis*, 2(1), 204–218.
- Ishaku, A., & Abdulkarim, H. (2021). Moderating Effect of Audit Quality on the Relationship Between Board Characteristics and Audit Report Lag of Listed Non-Financial Companies in Nigeria. *Research Journal of Finance and Accounting*, 12(8).
- Jaggi, B., & Tsui, J. (1999). Determinants of audit report lag: Further evidence from Hong Kong. *Accounting and Business Research*, 30(1), 17–28.
- Kaaroud, M. A., Mohd Ariffin, N., & Ahmad, M. (2020). The extent of audit report lag and governance mechanisms: Evidence from Islamic banking institutions in Malaysia. *Journal of Islamic Accounting and Business Research*, 11(1), 70–89.
- Kane, G. D., & Velury, U. (2004). The role of institutional ownership in the market for auditing services: An empirical investigation. *Journal of Business Research*, 57(9), 976–983.
- Kawshalya, P., & Srinath, N. (2019). The impact of company characteristics and IFRS adoption on audit report delay: Evidence from a developing country. *ACM International Conference Proceeding Series*, 87–91.
- Knechel, W. R., & Payne, J. L. (2001). Additional evidence on audit report lag. *Auditing*, 20(1), 137–146.
- Lai, T. T. T., Tran, M. D., Hoang, V. T., & Nguyen, T. H. L. (2020). Determinants influencing audit delay: The case of Vietnam. *Accounting*, 6(5), 851–858.
- Lee, H. Y., & Jahng, G. J. (2008). Determinants of audit report lag: Evidence from Korea - An examination of auditor-related factors. *Journal of Applied Business Research*, 24(2), 27–44.
- Leventis, S., Weetman, P., & Caramanis, C. (2005). Determinants of Audit Report Lag: Some Evidence from the Athens Stock Exchange. *International Journal of Auditing*, 9(1), 45–58.
- Milgram, S. (1963). Behavioral Study of obedience. *The Journal of Abnormal and Social Psychology*, 67(4), 371–378.

- Ng, P. P. H., & Tai, B. Y. K. (1994). An empirical examination of the determinants of audit delay in Hong Kong. *British Accounting Review*, 26, 43-59.
- Owusu-Ansah, S. (2005). Timeliness of Corporate Financial Reporting in Emerging Capital Markets: Empirical Evidence from the Zimbabwe Stock Exchange. *Accounting & Business Research*, 30(3).
- Porter, B. A. (1990). The audit-expectation-performance gap and the role of external auditors in society. Massey University. 511.
- Reheul, A. M., Van Caneghem, T., & Verbruggen, S. (2013). Audit report lags in the Belgian non-profit sector: An empirical analysis. *Accounting and Business Research*, 43(2), 138–158.
- Robert Knechel, W., & Sharma, D. S. (2012). Auditor-provided nonaudit services and audit effectiveness and efficiency: Evidence from pre- and post-SOX audit report lags. *Auditing*, 31(4), 85–114.
- Rusmin, R., dan J. Evans. 2017. Audit Quality and Audit Report Lag: Case of Indonesian Listed Companies. *Journal of Asian Review of Accounting*, Vol. 25, No. 2, h. 1-30.
- Sengupta, P. (2004). Disclosure timing: Determinants of quarterly earnings release dates. *Journal of Accounting and Public Policy*, 23(6), 457–482.
- Stewart, E. G., & Cairney, T. D. (2019). Audit report lag and client industry homogeneity. *Managerial Auditing Journal*, 34(8), 1008–1028.
- Suliyanto. (2018). Analisis Regresi Berganda. In *Ekonometrika Terapan : Teori & Aplikasi dengan SPSS*. Andy Offset
- Sultana, N., Singh, H., & Van der Zahn, J. L. W. M. (2015). Audit Committee Characteristics and Audit Report Lag. *International Journal of Auditing*, 19(2), 72–87.
- Susanto Salim, E. L. (2022). Analisis Pengaruh Karakteristik Perusahaan Terhadap Audit Report Lag Tahun 2019-2020. *Jurnal Ekonomi*, 26(11), 83–102.
- Suyono, E. (2022). Peran Audit Eksternal Dalam Memajukan Usaha Kecil Dan Menengah Di Jawa Tengah: Sebuah Kajian Konseptual di Jawa Tengah: Sebuah Kajian Konseptual. *Soedirman Accounting, Auditing and Public Sector Journal*, 3(3), 512–519.
- Tyler, T. R. (1990). Why people obey the law: Procedural justice, legitimacy, and compliance. New Haven, CT: Yale University Press.
- Valentine Gabriella, E. M. A. (2021). Pengaruh Kualitas Auditor, Opini Auditor, Dan Profitabilitas Terhadap Audit Report Lag. *Jurnal Eksplorasi Akuntansi*, 10(2), 1–15.
- Velte, P. (2020). Associations between the financial and industry expertise of audit committee members and key audit matters within related audit reports. *Journal of Applied Accounting Research*, 21(1), 185–200.
- Vuko, Tina and Marko Cular. (2014). Finding determinants of audit delay by pooled OLS regression analysis. *Croatian Operational Research Review*, 5, 81-91.

- Wafa, A.-G., & Mohamed, H. (2011). An Empirical Analysis Of Audit Delays And Timeliness Of Corporate Financial Reporting In Kuwait. *Eurasian Business Review*, 1, 73–90.
- Walker, A., & Hay, D. (2013). Non-audit services and knowledge spillovers: An investigation of the audit report lag. *Meditari Accountancy Research*, 21(1), 32–51.
- Wuttichindanon, S., & Issarawornrawanich, P. (2020). Determining factors of key audit matter disclosure in Thailand. *Pacific Accounting Review*, 32(4), 563–584.