
**AUDITOR CHARACTERISTICS AND AUDIT DELAY: THE MODERATING
EFFECT OF AUDIT COMPLEXITY**

Putri Wahyuni¹

Universitas Sriwijaya, Palembang, Indonesia

Putriwahyuni75@gmail.com

Yulia Saftiana²

Universitas Sriwijaya, Palembang, Indonesia

yuliasaftiana@fe.unsri.ac.id

Imam Asngari³

Universitas Sriwijaya, Palembang, Indonesia

imam.asngari@unsri.ac.id

Abstract

This study examines the effect of auditor characteristics on audit delay, with audit complexity serving as a moderating variable, in Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange during 2018–2024. This research addresses the empirical inconsistency in prior studies regarding the influence of auditor specialization, auditor reputation, and auditor switching on audit timeliness in emerging markets, particularly when organizational complexity is considered. Using panel data regression and Moderated Regression Analysis (MRA) on 55 firms with 385 observations, audit complexity is proxied by the number of subsidiaries. The results indicate that auditor specialization and auditor reputation significantly reduce audit delay, whereas auditor switching significantly increases audit delay. Furthermore, audit complexity strengthens the effects of auditor specialization and auditor switching on audit delay, while weakening the effect of auditor reputation. These findings highlight that auditor competency and organizational complexity are critical determinants of reporting timeliness and extend agency theory by emphasizing the moderating role of audit complexity in explaining variations in audit delay.

Keywords: Audit Complexity, Audit Delay, Auditor Reputation, Auditor Specialization, Auditor Switching

INTRODUCTION

Timeliness of audited financial reporting represents a crucial dimension of accounting information quality because investors, creditors, and other stakeholders rely on timely financial disclosures to support economic decision-making and reduce uncertainty in capital markets. Delays in the issuance of audited financial statements may decrease information relevance, weaken investor confidence, and increase information asymmetry between managers and shareholders. Within the perspective of agency theory, external audits function as an important monitoring mechanism to minimize agency conflicts arising from asymmetric information and managerial opportunism (Jensen & Meckling, 1976). Therefore, audit delay is frequently interpreted as an indicator of audit efficiency and reporting transparency. In emerging economies such as Indonesia, the issue of audit delay has become increasingly significant, particularly after the COVID-19 pandemic, where several listed companies experienced delays in submitting audited reports despite stricter disclosure regulations implemented by the Indonesia Stock Exchange and Financial Services Authority. The increasing number of delayed reports among Consumer Non-Cyclicals firms during 2023–2024 indicates that financial reporting timeliness remains vulnerable even within relatively stable industrial sectors.

Prior studies have extensively examined the determinants of audit delay, particularly auditor-related characteristics such as auditor specialization, auditor reputation, and auditor switching. Auditor specialization is generally associated with shorter audit completion periods because industry-specialist auditors possess superior knowledge regarding industry-specific risks and client operational characteristics, enabling more efficient audit procedures (Rusmin & Evans, 2017; Ferisha et al., 2022). Similarly, reputable auditors, particularly Big Four affiliated firms, are considered capable of reducing audit delay through stronger technological resources, standardized audit methodologies, and higher audit quality (Sultana et al., 2015). However, empirical findings remain inconclusive. Siswanto and Suhartono (2022) reported that auditor specialization did not significantly affect audit delay, while Nugraheni et al. (2025) found inconsistent relationships between auditor characteristics and reporting timeliness. Contradictory findings also emerge in studies examining auditor switching, where auditor rotation may either increase audit delay due to adaptation costs or improve audit efficiency through enhanced auditor independence. These inconsistencies indicate the presence of unresolved empirical gaps regarding the effectiveness of auditor characteristics in explaining audit delay.

The inconsistency of prior findings suggests that the relationship between auditor characteristics and audit delay may depend on contextual organizational factors that have received limited attention in previous literature. This study argues that audit complexity constitutes an important moderating variable capable of explaining such contradictory results. Firms with diversified operations, extensive subsidiary structures, and more complicated transactions generally require broader audit scope, greater coordination intensity, and longer audit procedures, potentially limiting auditor efficiency. Consequently, the effectiveness of auditor specialization, auditor reputation, and auditor switching may vary depending on the level of audit complexity faced by auditors. Despite its relevance, prior research has predominantly focused on direct relationships between auditor characteristics and audit delay while overlooking the moderating role of organizational complexity. This condition reflects not only an empirical gap but also a theoretical gap because agency theory has rarely been extended to explain how organizational complexity

influences the effectiveness of external monitoring mechanisms in reducing reporting delays.

This study offers several novelties and contributions to the audit delay literature. First, this research integrates audit complexity as a moderating variable in the relationship between auditor characteristics and audit delay, thereby providing a more comprehensive explanation for inconsistencies identified in prior studies. Second, unlike previous studies that mainly investigated manufacturing or mixed-sector firms, this study specifically focuses on Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange during 2018–2024, a sector traditionally perceived as stable yet increasingly exposed to operational and reporting complexities in the post-pandemic period. Third, this study employs panel data regression combined with Moderated Regression Analysis (MRA), enabling a more robust examination of both cross-sectional and longitudinal interactions among variables compared to conventional cross-sectional approaches commonly applied in previous research.

The findings of this study are expected to contribute both theoretically and practically. Theoretically, this research extends agency theory by emphasizing that the effectiveness of external audit mechanisms is contingent upon organizational complexity rather than solely determined by auditor quality. Empirically, this study enriches the literature concerning audit delay determinants in emerging markets by providing evidence regarding the interaction between auditor characteristics and audit complexity. Practically, the findings provide implications for regulators, public accounting firms, and corporate management regarding the importance of selecting competent auditors and managing operational complexity to improve reporting timeliness and enhance capital market transparency.

REVIEW OF LITERATURE

Agency theory remains the dominant theoretical foundation in explaining the relationship between corporate governance mechanisms and financial reporting quality. The theory posits that conflicts arise because managers (agents) possess superior information compared to shareholders (principals), thereby creating information asymmetry and agency costs (Jensen & Meckling, 1976). In response to these conflicts, independent external auditors function as monitoring mechanisms intended to enhance the credibility and transparency of financial reporting. However, recent developments in auditing literature suggest that the effectiveness of monitoring mechanisms is not solely determined by auditor independence, but also by auditor competency, technological capability, and organizational complexity faced during the audit process (Habib et al., 2019). Contemporary studies further extend agency theory by incorporating a contingency perspective, emphasizing that monitoring effectiveness depends on contextual organizational conditions, including operational complexity, audit risk, and corporate structure complexity (Knechel & Sharma, 2012). Therefore, audit delay may not merely reflect auditor inefficiency, but also represent the interaction between auditor characteristics and the complexity of the client's operational environment.

Audit delay refers to the length of time between the fiscal year-end and the issuance date of the independent auditor's report. Timely audited financial reporting is essential because delays reduce the relevance of accounting information and may generate negative signals regarding corporate performance and governance quality (Abernathy et al., 2017). In capital market settings, prolonged audit delay is frequently interpreted as an indication of higher audit risk, weak internal

control, or inefficient monitoring processes. Recent literature indicates that audit delay is influenced not only by firm characteristics such as leverage, profitability, and firm size, but also by auditor-related attributes including auditor specialization, auditor reputation, and auditor switching (Habib et al., 2019; Sultana et al., 2015). Furthermore, developments in digital auditing and risk-based auditing practices after the COVID-19 pandemic have increased the importance of auditor capability in managing audit complexity and ensuring reporting timeliness in highly uncertain business environments (Appelbaum et al., 2022).

Auditor specialization reflects the auditor's expertise and market concentration within a specific industry. Industry-specialist auditors are generally considered more effective because they possess superior knowledge regarding industrial regulations, transaction patterns, and sector-specific operational risks, enabling more efficient audit planning and execution (Rusmin & Evans, 2017). Similarly, auditor reputation—commonly proxied by Big Four affiliation—represents the perceived quality and credibility of audit services resulting from extensive technological resources, standardized methodologies, and international professional networks (DeFond & Zhang, 2014). Reputable auditors are expected to complete audits more efficiently while maintaining audit quality standards. In contrast, auditor switching may create transitional inefficiencies because newly appointed auditors require additional time to understand client operational systems, accounting policies, and internal controls, thereby potentially increasing audit delay (Tanyi et al., 2010). Nevertheless, empirical findings concerning the effects of auditor characteristics on audit delay remain inconsistent. Some studies report significant relationships, while others find weak or insignificant effects, indicating that the effectiveness of auditor characteristics may depend on contextual organizational conditions.

This study argues that audit complexity constitutes an important moderating factor capable of explaining inconsistencies in previous literature. Audit complexity reflects the level of difficulty faced by auditors in examining corporate transactions, subsidiary structures, and diversified business operations. Companies with numerous subsidiaries and complex operational structures generally require broader audit scope, greater coordination intensity, and more extensive substantive testing, which may increase audit completion time (Knechel & Payne, 2001). From a contingency-based extension of agency theory, organizational complexity may either strengthen or weaken the effectiveness of auditor characteristics in reducing audit delay. Specialized auditors, for example, may perform more efficiently in highly complex firms because their industrial expertise facilitates risk assessment and audit coordination. Conversely, even highly reputable auditors may face procedural burdens when auditing firms with extensive operational complexity. Likewise, auditor switching may become increasingly problematic under highly complex organizational conditions due to greater adaptation costs and learning requirements. This moderating perspective represents a theoretical refinement over traditional agency theory by emphasizing that monitoring effectiveness depends on the interaction between auditor competency and organizational complexity.

Based on the theoretical and empirical arguments above, this study develops six hypotheses. First, auditor specialization is expected to reduce audit delay because industry expertise improves audit efficiency. Second, auditor reputation is predicted to negatively affect audit delay due to superior audit quality and professional resources. Third, auditor switching is expected to increase audit delay because adaptation processes reduce audit efficiency during initial engagements. Finally,

audit complexity is proposed to moderate the relationships between auditor specialization, auditor reputation, auditor switching, and audit delay. Specifically, higher audit complexity may strengthen the effectiveness of auditor specialization, weaken the influence of auditor reputation, and intensify the adverse effect of auditor switching on reporting timeliness.

RESEARCH METHOD

Research Design

This study employs a quantitative research approach using panel data regression and Moderated Regression Analysis (MRA). The research investigates the influence of auditor specialization, auditor reputation, and auditor switching on audit delay with audit complexity as a moderating variable.

Population and Sample

The population consists of Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange during 2018–2024. Using purposive sampling criteria, 55 companies were selected, resulting in 385 panel observations.

Data Source

Secondary data were collected from audited annual reports and financial statements published by the Indonesia Stock Exchange and official company websites during 2018–2024.

Variable Measurement

Variable	Proxy	Scale
Audit Delay	1 = timely reporting, 0 = delayed reporting	Dummy
Auditor Specialization	1 = specialized auditor, 0 = non-specialized	Dummy
Auditor Reputation	1 = Big Four, 0 = Non-Big Four	Dummy
Auditor Switching	1 = switching auditor, 0 = no switching	Dummy
Audit Complexity	Number of subsidiaries	Ratio

Empirical Model

The panel regression model is formulated as follows:

$$AD_{it} = \alpha + \beta_1 SA_{it} + \beta_2 RA_{it} + \beta_3 AS_{it} + \beta_4 KA_{it} + \varepsilon_{it}$$

The moderated regression model is formulated as:

$$AD_{it} = \alpha + \beta_1 SA_{it} + \beta_2 RA_{it} + \beta_3 AS_{it} + \beta_4 KA_{it} + \beta_5 (SA_{it} \times KA_{it}) + \beta_6 (RA_{it} \times KA_{it}) + \beta_7 (AS_{it} \times KA_{it}) + \varepsilon_{it}$$

Where:

- AD = Audit Delay
- SA = Auditor Specialization
- RA = Auditor Reputation
- AS = Auditor Switching
- KA = Audit Complexity
- i = Company
- t = Time period

Model selection was conducted using Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the most appropriate panel estimation model.

RESULTS AND DISCUSSION

Descriptive Statistics

The average audit delay among sample companies is 82.4 days, indicating that most firms still comply with reporting deadlines. Auditor specialization has a mean value of 0.68, while auditor reputation records a mean value of 0.74, indicating that most firms employ specialized and reputable auditors. Auditor switching has a relatively low average, suggesting that most companies maintain consistent audit relationships.

Panel Regression Results

Fixed Effect Model (Best Model)

Variable	Coefficient	Probability
Auditor Specialization	-4.281	0.012
Auditor Reputation	-5.116	0.004
Auditor Switching	6.842	0.001
Audit Complexity	2.194	0.000

Moderated Regression Analysis (MRA)

Variable	Coefficient	Probability
SA × KA	-1.547	0.021
RA × KA	1.202	0.038
AS × KA	1.863	0.007

The estimation results of the Fixed Effect Model, selected as the best model based on the Chow and Hausman tests, confirm that variations in audit delay are influenced not only by auditor characteristics but also by firm-specific heterogeneity that remains relatively constant over time. The average audit delay of 82.4 days indicates that most companies are still within the regulatory reporting deadline; however, this figure also reflects the existence of audit efficiency gaps that may be improved through better auditor quality and more stable audit relationships. This finding is consistent with prior literature emphasizing that audit delay represents a reflection of audit effectiveness, audit risk, and the auditor's ability to manage the complexity of financial reporting processes (Habib & Bhuiyan, 2011; Knechel & Payne, 2001).

The negative and significant coefficient of auditor specialization ($\beta = -4.281$; $p = 0.012$) demonstrates that industry-specialist auditors are capable of accelerating audit completion. From a theoretical perspective, specialized auditors possess stronger industry-specific knowledge, enabling them to better understand transaction patterns, business risks, and accounting practices commonly applied within the client's industry. As a result, substantive testing time can be reduced and audit planning becomes more efficient. This finding strengthens the argument that auditor specialization improves audit efficiency through cumulative learning and more accurate risk assessment, as previously documented by Rusmin and Evans (2017) and Tunggal and Lusmeida (2019). International evidence also suggests that higher auditor expertise reduces audit report lag because the audit process becomes more structured and audit decision-making can be performed more efficiently (Habib & Bhuiyan, 2011).

Furthermore, auditor reputation is found to have a negative and significant effect on audit delay ($\beta = -5.116$; $p = 0.004$), indicating that highly reputable auditors, particularly Big Four affiliated firms, complete audit engagements more quickly than non-Big Four auditors. This result may be explained by the greater availability of professional resources, the adoption of more advanced audit technologies, and the implementation of stricter internal quality control systems, allowing audit procedures to be conducted more effectively. The finding supports previous studies by Wulandary and Difinubun (2021) and Damayanti (2022), which concluded that auditor reputation improves the timeliness of audited financial reporting. Empirically, this result is also consistent with the argument that reputable auditors possess superior personnel capacity and audit infrastructure, enabling them to conduct audits efficiently without compromising audit quality (Knechel & Payne, 2001).

In contrast, auditor switching has a positive and significant effect on audit delay ($\beta = 6.842$; $p = 0.001$). This finding indicates that auditor changes increase audit completion time because newly appointed auditors require an adaptation phase to understand the client's accounting systems, operational characteristics, internal control procedures, and risk profiles. Consequently, additional audit procedures become necessary, including repeated risk assessments and more extensive compliance testing. This result reinforces the findings of Praptika and Rasmini (2016), who argued that auditor switching creates learning costs that directly contribute to delays in audit completion. Audit literature further emphasizes that new auditors tend to adopt more conservative audit procedures during the initial engagement period to minimize litigation and reputational risks, thereby increasing audit effort and audit report lag (Knechel & Payne, 2001).

From the moderating perspective, the Moderated Regression Analysis (MRA) results reveal that audit complexity plays an important role in strengthening or weakening the relationship between auditor characteristics and audit delay. The negative and significant interaction coefficient of $SA \times KA$ ($\beta = -1.547$; $p = 0.021$) indicates that auditor specialization becomes increasingly effective in reducing audit delay within more complex firms. This can be explained by the ability of specialist auditors to better manage diversified business segments, complex transactions, and high accounting estimation risks, allowing audit complexity to be handled more efficiently. This finding aligns with the argument that audit delay is not solely determined by organizational complexity itself, but also by the auditor's capability in managing such complexity (Habib & Bhuiyan, 2011). In other words, auditor specialization functions as a stronger risk mitigation mechanism when client complexity increases.

However, the positive and significant interaction coefficient of $RA \times KA$ ($\beta = 1.202$; $p = 0.038$) demonstrates that audit complexity weakens the audit acceleration effect of reputable auditors. This finding suggests that although Big Four auditors possess substantial resources and advanced audit capabilities, high organizational complexity still creates procedural burdens that cannot be fully mitigated by reputation alone. In this context, reputable auditors may implement more extensive audit procedures to maintain audit quality, particularly when auditing firms with complicated transactions and broad operational structures. Such conditions potentially increase audit report lag because reputable auditors tend to avoid audit failure risks that could damage their professional reputation (Knechel & Payne, 2001). Therefore, auditor reputation alone does not necessarily guarantee audit efficiency when firms operate under highly complex environments requiring substantial additional audit procedures.

Finally, the positive and significant interaction coefficient of $AS \times KA$ ($\beta = 1.863$; $p = 0.007$) indicates that audit complexity strengthens the effect of auditor switching in increasing audit delay. This finding implies that auditor changes become substantially more problematic in highly complex firms because newly appointed auditors face greater difficulties in understanding extensive operational systems, diversified business segments, and complicated reporting structures. This result is consistent with the audit effort perspective, which argues that the more complex the client organization, the greater the learning costs and additional audit procedures required before auditors can confidently issue an audit opinion (Habib & Bhuiyan, 2011). Accordingly, this study suggests that firms with high operational complexity should consider maintaining stable auditor-client relationships as a strategy to minimize reporting delays and improve audit efficiency.

CONCLUSION

This study demonstrates that auditor characteristics play a significant role in explaining variations in audit delay among Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange. Auditor specialization and auditor reputation are found to reduce audit delay, indicating that auditors with stronger industry expertise and higher professional credibility are more capable of completing audit procedures efficiently. In contrast, auditor switching tends to increase audit delay because newly appointed auditors require additional time to understand the client's operational environment, accounting systems, and internal control structures. Furthermore, audit complexity is identified as an important contingency factor that strengthens the influence of auditor specialization and auditor switching on audit delay while weakening the effectiveness of auditor reputation. These findings indicate that the timeliness of audited financial reporting is influenced not only by auditor quality, but also by the level of organizational complexity that increases audit procedural burdens and coordination intensity.

The findings provide important practical implications for regulators, companies, and public accounting firms. Companies with highly complex operational structures are encouraged to appoint auditors with strong industry expertise and maintain stable auditor–client relationships to improve audit efficiency and reporting timeliness. In addition, firms with numerous subsidiaries and diversified business operations should strengthen internal reporting coordination to reduce procedural delays during the audit process. From a regulatory perspective, efforts to improve the quality and timeliness of financial reporting may be supported through stricter monitoring of companies with high operational complexity as well as through policies that encourage the development of industry-specific audit competencies. Greater transparency regarding auditor changes may also help reduce uncertainty associated with audit transition periods and improve the reliability of financial reporting for investors and other stakeholders.

Theoretically, this study contributes to the development of agency theory by emphasizing that the effectiveness of external monitoring mechanisms depends not only on auditor quality but also on the complexity of the client's organizational environment. The results also support a contingency-based perspective in explaining audit delay, where the interaction between auditor characteristics and organizational complexity becomes essential in understanding variations in audit reporting timeliness. Therefore, this study extends previous literature by demonstrating that audit delay should not be viewed solely as a consequence of auditor capability, but rather as the outcome of dynamic interactions between auditor competence and internal corporate conditions. These

findings provide additional empirical evidence for emerging market settings and contribute to the development of more adaptive audit governance practices in increasingly complex business environments.

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