Mechanisms shaping audit quality: Empirical evidence on audit fees, audit tenure, firm size, and audit committees

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ABSTRACT

This study examines the effects of audit fees, audit tenure, and firm size on audit quality and investigates the moderating role of the audit committee among telecommunications companies listed on the Indonesia Stock Exchange. A quantitative approach was employed using secondary data from financial statements and annual reports covering 2020–2025. Through purposive sampling, 18 firms were selected, yielding 108 firm-year observations. The data were analyzed using panel data regression and, because of heteroskedasticity and extreme observations, robust least squares (M-estimation) in EViews 13. The novelty of the study lies in measuring audit quality through a weighted composite index integrating five dimensions—auditor reputation, audit opinion, going concern, audit delay, and restatement—and examining audit committee moderation within the telecommunications industry. The findings indicate that audit fees and audit tenure have no significant effect on audit quality, whereas firm size has a positive and significant effect. The independent variables jointly explain audit quality, while the audit committee does not significantly moderate the effects of audit fees, audit tenure, or firm size on audit quality. These findings suggest that organizational scale and capacity are more influential in determining audit quality than audit fees or the length of the auditor–client relationship. Practically, the findings highlight the need to strengthen auditor independence and professional skepticism and to enhance the substantive effectiveness of audit committees as a corporate governance mechanism.

Keywords: Audit committee, Audit fee, Audit quality, Audit tenure, Corporate governance, Firm size, Indonesia stock exchange, Telecommunications industry.

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Highlights of this paper

- This study measures audit quality using a weighted composite index that integrates auditor reputation, audit opinion, going concern, audit delay, and restatement.
- Among telecommunications companies listed on the Indonesia Stock Exchange during 2020–2025, firm size has a positive and significant effect on audit quality, whereas audit fees and audit tenure have no significant effect.
- 3. The audit committee, measured by its size, does not moderate any of these relationships, indicating that formal compliance with governance requirements does not ensure effective audit oversight.

1. INTRODUCTION

Audit quality is a fundamental component of credible financial reporting because it determines the extent to which financial statements can be relied upon by investors, creditors, regulators, and other stakeholders. Financial statements serve as a primary source of information for economic decision-making; however, information asymmetry arises because management possesses greater access to internal information than external stakeholders. This asymmetry may create conflicts of interest and provide opportunities for managerial opportunism in the preparation and presentation of financial information. Independent external auditing therefore serves as an important monitoring mechanism for reducing information asymmetry, mitigating agency conflicts, and enhancing the credibility of corporate financial reporting.

The importance of audit quality is particularly pronounced in industries characterized by high operational complexity, substantial investment, extensive infrastructure, and sophisticated financial transactions. The telecommunications industry represents such an environment. Telecommunications companies generally operate large-scale infrastructure, manage complex contractual arrangements, undertake substantial capital investments, and face rapid technological and competitive changes. These characteristics increase audit complexity and may affect auditors' ability to obtain sufficient and appropriate audit evidence. In the Indonesian telecommunications sector, the average total assets of the sampled companies increased from approximately Indonesian rupiah (IDR) 28.77 trillion in 2020 to IDR 41.28 trillion in 2025, indicating substantial growth in the scale and complexity of the industry.

One important determinant of audit quality is the audit fee. Audit fees represent compensation for the time, expertise, resources, and engagement risks incurred by auditors. From a resource-based perspective, higher audit fees may enable audit firms to allocate more experienced personnel, employ more sophisticated audit technologies, and devote greater effort to identifying material misstatements and irregularities. Nevertheless, a higher audit fee does not necessarily guarantee higher audit quality because economic dependence and the nature of the auditor–client relationship may also create pressures that affect auditor independence.

This issue is particularly relevant in the telecommunications industry. The average audit fee among telecommunications companies increased consistently from approximately IDR 6.18 billion in 2020 to IDR 8.61 billion in 2025. Although this increase may indicate greater audit effort and resource allocation, it also raises an important empirical question: does a higher audit fee actually translate into better audit quality, or does additional audit remuneration fail to produce a corresponding improvement in audit outcomes? This phenomenon provides an important basis for reassessing the relationship between audit fees and audit quality.

The empirical literature provides no conclusive answer to this question. Several studies, including Damayanti and Aufa (2022), Darmawan and Ardini (2021), Handoyo and Febriani (2025), Febrian and Maulana (2025), Alladeta and Afifi (2025), Agastya and Ardelia (2024), Da Costa and Azmiyanti (2025), Purnamasari and Zenabia (2025), Nabila and Pohan (2025), Indriyani and Meini (2021), Susilawati, Toni, Hwee Teng, and Hutagalung (2023), and Ariyanto and Fanani (2020) report a positive association between audit fees and audit quality. These findings suggest that

greater audit remuneration may enable auditors to allocate additional resources, time, and expertise to audit engagements. In contrast, Reschiwati, Kusumaningrum, and Pratiwi (2023), Hartono and Laksito (2022), Hutajulu (2023), Falisah, Setyadi, Santoso, and Kusbandiyah (2025), Farid and Baradja (2022), Trianjani, Rahayu, and Ridwan (2023) and Cahyanti, Hastuti, and Werdiningsih (2022) find no significant relationship between audit fees and audit quality. Furthermore, Ananda and Faisal (2023) and Putri and Astuti (2025) report a negative relationship between audit fees and audit quality. These contradictory findings indicate an unresolved empirical gap regarding whether audit fees function primarily as a resource that enhances audit quality or as an economic relationship that may create incentives or pressures affecting audit outcomes.

A second important determinant is audit tenure, referring to the length of the auditor–client engagement. A longer audit tenure may improve audit quality because auditors accumulate client-specific knowledge and develop a deeper understanding of the client's business processes, internal control systems, accounting practices, and risk profile. Such accumulated knowledge can enhance audit efficiency and the auditor's ability to identify material misstatements. However, excessively long audit tenure may also create a familiarity threat, potentially weakening professional skepticism and auditor independence. Thus, audit tenure presents a fundamental trade-off between the benefits of accumulated client-specific knowledge and the potential risks associated with excessive familiarity.

The telecommunications sector provides an important empirical context for examining this trade-off. The average audit tenure increased from 1.00 year in 2020 to 3.28 years in 2023 before declining to 2.61 years in 2025, partly reflecting auditor rotation among telecommunications companies. This pattern indicates considerable variation in auditor–client relationships and raises an important question as to whether longer audit tenure improves audit quality through accumulated client knowledge or instead reduces audit quality because of diminished auditor independence.

Previous studies likewise provide conflicting evidence regarding the effect of audit tenure on audit quality. Reschiwati et al. (2023), Ananda and Faisal (2023), Guska and Yanti (2025), Sososutiksno and Deeng (2023), Himawan and Risa (2025), Irana, Yudi, and Prasetyo (2025), Sapitri, Sriyunianti, and Ananto (2025) and Susilawati et al. (2023) report a positive effect of audit tenure on audit quality. These findings support the argument that longer auditor–client relationships enhance client-specific knowledge and improve audit effectiveness. Conversely, Agastya and Ardelia (2024), Farid and Baradja (2022), Salikin and Sarwoko (2025) and Aurelia and Haq (2024) find a negative effect of audit tenure on audit quality, suggesting that prolonged relationships may increase familiarity threats and compromise auditor independence. Other studies, including Hartono and Laksito (2022), Wardani, Bambang, and Waskito (2022), Purnamasari and Zenabia (2025), Damayanti and Aufa (2022), Fauziyah and Amiranto (2025), Baity and Fitriyana (2025), Putri and Astuti (2025), Hasanah and Nelvirita (2024), Febrian and Maulana (2025), Da Costa and Azmiyanti (2025), Ariyanto and Fanani (2020) and Cahyanti et al. (2022) find no significant effect of audit tenure on audit quality.

These divergent findings reveal a substantial empirical gap in understanding the relationship between audit tenure and audit quality. The literature produces three competing patterns—positive, negative, and insignificant relationships—suggesting that the effect of audit tenure may be context-dependent rather than universal. Differences in industry characteristics, organizational complexity, corporate governance mechanisms, and auditor–client relationships may explain why longer audit tenure produces different audit-quality outcomes across studies.

Firm size represents a third potential determinant of audit quality. Larger firms generally possess greater financial and organizational resources, more sophisticated internal control systems, and more developed accounting and governance infrastructures. These characteristics may facilitate the audit process and support higher audit quality. However, larger firms also tend to have more complex organizational structures, broader operating activities,

higher transaction volumes, and more sophisticated financial arrangements. Consequently, firm size may simultaneously provide resources that facilitate auditing and create additional audit complexity and risk.

The existing evidence regarding firm size is similarly inconclusive. Sukmawati, Junaidi, Purnama, and Yustisi (2024), Indriyani and Meini (2021), Farid and Baradja (2022), Khamisah, Nurullah, and Kesuma (2025), Arista, Kuntadi, and Pramukty (2023), Cahyanti et al. (2022) and Pamungkas, Purnamasari, and Windyastuti (2022) find no significant effect of firm size on audit quality. In contrast, Syafanisa Lizara and Subiyanto (2022), Mardyanti and Praptiningsih (2022), Falisah et al. (2025), Fauzan, Amiruddin, and Saffanah (2025), Claudia (2023), Yanti and Wijaya (2020), Ramdani (2022), Regina and Santioso (2023) and Carp and Istrate (2021) report a positive effect of firm size on audit quality. Conversely, Himawan and Risa (2025), Zahra and Hermanto (2024) and Lathifannisa, Ekawati, and Syarif (2025) report a negative effect.

The conflicting evidence suggests that firm size alone may not adequately explain variations in audit quality. Large firms may benefit from stronger internal controls and greater organizational resources, but their operational and transactional complexity may simultaneously increase audit risk. Therefore, the relationship between firm size and audit quality warrants further investigation, particularly in the telecommunications sector, where large-scale assets and complex business operations are dominant characteristics.

Taken together, the inconsistent findings concerning audit fee, audit tenure, and firm size demonstrate a substantial empirical gap in the audit-quality literature. Previous studies have reached different conclusions regarding not only the significance but also the direction of these relationships. This inconsistency suggests that the determinants of audit quality may depend on the institutional and governance context in which auditing takes place. Consequently, examining only direct relationships may be insufficient to explain how audit quality is shaped in complex corporate environments.

In this context, the audit committee represents an important corporate governance mechanism that may condition the relationships between audit-related and firm-related characteristics and audit quality. The audit committee plays a strategic role in overseeing financial reporting, interacting with external auditors, and supporting the effectiveness of the external audit function. Its oversight role may therefore determine whether audit fees, auditor tenure, and firm size ultimately contribute to higher audit quality.

However, the formal existence of an audit committee does not necessarily imply effective oversight. The empirical data show that all companies in the sample complied with the minimum requirement of three audit committee members stipulated in OJK Regulation No. 55/POJK.04/2015 during 2020–2025, while several larger companies had four members. This finding raises a more substantive governance question: does formal compliance with audit committee requirements translate into effective monitoring of external auditors and financial reporting quality? Thus, the audit committee should not be viewed merely as a formal governance requirement but as a potentially important mechanism capable of changing the strength and direction of the relationships between audit-related determinants and audit quality.

Beyond the inconsistency in empirical findings, this study identifies a measurement gap in the operationalization of audit quality. Much of the previous literature relies on a single proxy or binary indicator, such as audit firm reputation or audit opinion. Such approaches may oversimplify audit quality, which is inherently multidimensional. Contemporary literature emphasizes that audit quality encompasses both audit inputs and outcomes, including auditor reputation, audit opinion, reporting timeliness, going-concern assessment, and financial statement restatement. Accordingly, this study addresses the measurement gap by constructing a multidimensional audit quality index incorporating five indicators: audit firm reputation, audit opinion, audit delay, going-concern opinion, and

financial statement restatement. This approach is expected to provide a more comprehensive representation of audit quality than a single-proxy measure.

This study also addresses a contextual gap because the telecommunications sector remains relatively underexamined in the Indonesian audit-quality literature despite its high operational, technological, financial, and organizational complexity. The period 2020–2025 further provides a relevant setting for examining audit quality because it captures a period of substantial changes in corporate scale, auditor tenure, audit fees, and corporate governance practices.

Based on these empirical, measurement, and contextual gaps, this study aims to examine the effects of audit fee, audit tenure, and firm size on audit quality and to investigate the moderating role of the audit committee in these relationships among telecommunications companies listed on the Indonesia Stock Exchange during 2020–2025. The study makes three principal contributions. First, it extends the measurement of audit quality by employing a multidimensional composite index rather than relying on a single proxy. Second, it integrates audit engagement characteristics, firm characteristics, and corporate governance mechanisms into a single analytical framework, providing a more comprehensive explanation of audit quality. Third, it contributes recent empirical evidence from the Indonesian telecommunications sector, an industry characterized by substantial organizational, technological, and financial complexity. By addressing these gaps, the study seeks to provide a more nuanced understanding of the conditions under which audit fees, audit tenure, and firm size enhance or constrain audit quality and how corporate governance mechanisms influence these relationships.

2. CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

2.1. Conceptual Framework

This study develops an integrated framework to explain the determinants of audit quality by combining audit engagement characteristics, client characteristics, and corporate governance mechanisms. Specifically, the framework examines whether audit fee, audit tenure, and firm size influence audit quality and whether the audit committee strengthens these relationships. The conceptual framework is primarily grounded in Agency Theory and Signaling Theory.

Agency Theory explains that the separation of ownership and control creates information asymmetry and potential conflicts of interest between principals and agents. Managers, as agents, possess superior information regarding the firm's operations and financial condition, whereas shareholders and other external stakeholders rely on reported financial information. Independent external auditing consequently functions as a monitoring mechanism that reduces information asymmetry and limits the possibility of managerial opportunism. Jensen and Meckling (1976) argue that monitoring mechanisms are necessary to align managerial behavior with the interests of principals. Within this perspective, audit quality represents an important outcome of the monitoring process because a high-quality audit increases the credibility and reliability of financial reporting.

Signaling Theory (Spence, 1973) provides a complementary perspective. Management may use credible financial reporting and independent external assurance as signals of the firm's underlying quality to external stakeholders. A high-quality audit can strengthen the credibility of information disclosed by management and reduce uncertainty among investors and other users of financial statements. Consequently, characteristics of the audit engagement and the corporate governance structure may influence the credibility of the signal conveyed through audited financial statements.

Based on these theoretical arguments, audit fee is viewed as a resource-related characteristic of the audit engagement, audit tenure reflects the accumulation of client-specific knowledge as well as potential familiarity threats,

and firm size represents both organizational resources and operational complexity. The audit committee is positioned as a governance mechanism that may influence the effectiveness of these factors in producing high-quality audit outcomes.

Accordingly, the conceptual framework proposes that audit fee, audit tenure, and firm size directly affect audit quality, while the audit committee moderates each of these relationships. The framework is illustrated in Figure 1.

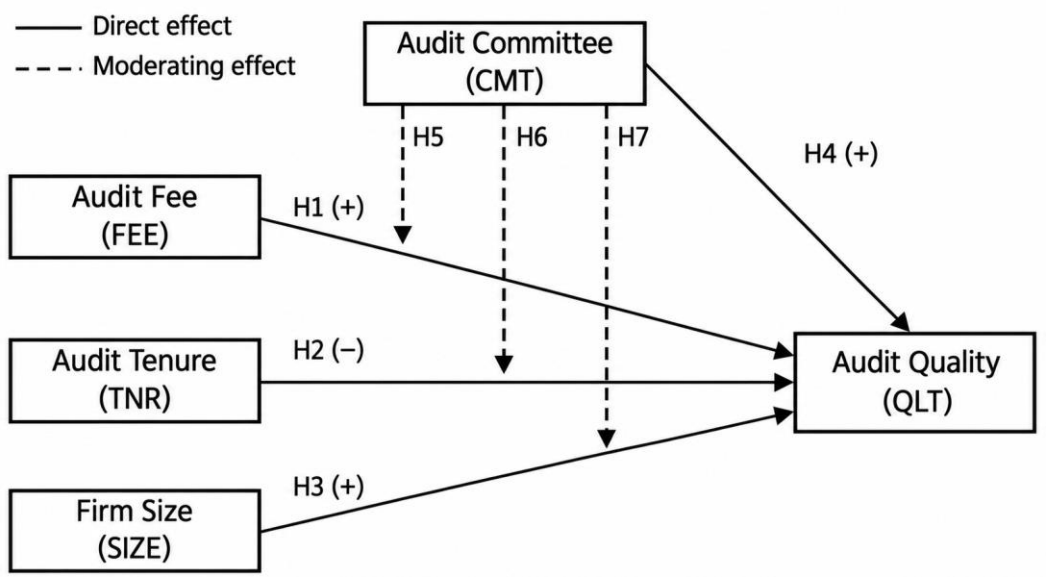


Figure 1. Conceptual framework.

This framework extends previous studies by examining the determinants of audit quality and the conditional role of the audit committee within a single analytical model. The approach is particularly relevant to telecommunications companies, where large asset bases, complex operations, technological development, and substantial audit engagements create a setting in which both audit characteristics and governance mechanisms may be important in determining audit quality.

2.2. Audit Fee and Audit Quality

Audit fee reflects the economic resources allocated to an audit engagement and compensates auditors for the time, expertise, personnel, technology, and engagement risk involved in performing the audit. From an agency perspective, higher audit fees may represent greater monitoring expenditure by the client to reduce information asymmetry and agency problems. A sufficiently resourced audit engagement allows auditors to allocate more time and personnel, perform more extensive audit procedures, and obtain more persuasive audit evidence.

Higher audit fees may therefore be associated with greater audit effort and, ultimately, higher audit quality. This argument is particularly relevant when audit fees reflect the complexity and risk of the engagement rather than merely the economic dependence of the auditor on the client. In complex business environments, adequate remuneration enables audit firms to deploy appropriate expertise and resources to address client-specific risks.

Empirical evidence, however, remains mixed. Damayanti and Aufa (2022), Darmawan and Ardini (2021), Handoyo and Febriani (2025), Febrian and Maulana (2025), Alladeta and Afifi (2025), Agastya and Ardelia (2024), Da Costa and Azmiyanti (2025), Purnamasari and Zenabia (2025), Nabila and Pohan (2025), Indriyani and Meini (2021), Susilawati et al. (2023) and Ariyanto and Fanani (2020) report positive relationships between audit fee and audit quality. These findings suggest that greater audit remuneration may provide auditors with additional resources

to perform more comprehensive audit procedures. In contrast, several studies find no significant effect, including Reschiwati et al. (2023), Hartono and Laksito (2022), Hutajulu (2023), Falisah et al. (2025), Farid and Baradja (2022), Trianjani et al. (2023) and Cahyanti et al. (2022). Other evidence indicates a negative relationship, as reported by Ananda and Faisal (2023) and Putri and Astuti (2025).

The conflicting evidence indicates that the relationship between audit fee and audit quality remains unresolved. Nevertheless, based on the resource argument underlying Agency Theory, an adequately funded audit engagement should enable auditors to devote greater resources and effort to the detection of material misstatements. Therefore, this study predicts a positive relationship between audit fee and audit quality.

H_1: Audit fee has a positive effect on audit quality.

2.3. Audit Tenure and Audit Quality

Audit tenure refers to the length of the auditor–client relationship. The effect of audit tenure on audit quality can be explained through two competing mechanisms. First, longer tenure allows auditors to accumulate client-specific knowledge. Through repeated engagements, auditors become more familiar with the client's business model, accounting policies, internal control systems, transactions, and risk profile. Such knowledge may improve risk assessment and enable auditors to identify unusual transactions and material misstatements more effectively.

From an agency perspective, accumulated client-specific knowledge can enhance the effectiveness of the auditor as an external monitoring mechanism. The auditor's deeper understanding of the client may reduce information-processing costs and increase the effectiveness of audit procedures. Consequently, longer tenure may initially contribute to higher audit quality.

However, prolonged auditor–client relationships may also create a familiarity threat. Excessive familiarity may weaken professional skepticism and reduce the auditor's willingness to challenge management. The economic and relational ties that develop over a prolonged engagement may potentially compromise auditor independence. Thus, audit tenure involves a fundamental trade-off between the benefits of client-specific knowledge and the risks associated with excessive familiarity.

Empirical evidence reflects this theoretical tension. Reschiwati et al. (2023), Ananda and Faisal (2023) and Susilawati et al. (2023) provide evidence of a positive relationship between audit tenure and audit quality, supporting the client-specific knowledge argument. Conversely, Aurelia and Haq (2024) report a significant negative relationship, while Agastya and Ardelia (2024) find a negative but statistically insignificant relationship. Other studies, including Ariyanto and Fanani (2020) and Cahyanti et al. (2022) find no significant relationship.

Although these findings remain inconsistent, this study emphasizes the potential familiarity threat associated with prolonged auditor–client relationships. In the context of audit quality, a longer tenure may increase the risk that auditors become excessively familiar with management and consequently exercise less professional skepticism. Therefore, the study predicts a negative relationship between audit tenure and audit quality.

H_2: Audit tenure has a negative effect on audit quality.

2.4. Firm Size and Audit Quality

Firm size is an important client characteristic because it captures the scale of a company's operations, resources, and organizational complexity. Larger firms generally have greater financial resources, more sophisticated accounting systems, stronger internal control structures, and more formalized governance mechanisms. These characteristics may facilitate the auditor's access to information and improve the effectiveness of audit procedures.

From an agency perspective, larger firms are exposed to greater scrutiny from investors, creditors, regulators, and other stakeholders. The greater visibility of large firms may increase the demand for credible financial reporting and high-quality external auditing. In addition, larger companies generally have stronger incentives to maintain the credibility of their financial statements because reputational and regulatory consequences associated with financial reporting failures can be substantial.

The empirical evidence concerning firm size is nevertheless inconclusive. Carp and Istrate (2021) report a significant relationship between auditee size and audit quality, while Yanti and Wijaya (2020) and Regina and Santioso (2023) also provide evidence of a positive association between firm size and audit quality. In contrast, Sukmawati et al. (2024) and Pamungkas et al. (2022) find no significant effect of firm size on audit quality.

The contradictory findings suggest that firm size may have both resource-enhancing and complexity-increasing effects. Nevertheless, larger firms generally possess greater resources and stronger incentives to maintain credible financial reporting. These characteristics are expected to facilitate more effective auditing and consequently improve audit quality. Accordingly, this study hypothesizes a positive relationship between firm size and audit quality.

H_6 Firm size has a positive effect on audit quality.

2.5. Audit Committee and Audit Quality

The audit committee is an important component of the corporate governance system because it provides oversight of financial reporting and the external audit process. An effective audit committee can enhance the monitoring function of the board by reviewing financial information, communicating with external auditors, overseeing the audit process, and evaluating the adequacy of internal control and financial reporting practices.

From an agency perspective, the audit committee can reduce information asymmetry by strengthening the monitoring of management and external auditors. An effective audit committee is expected to be more capable of challenging management judgments, facilitating communication with auditors, and ensuring that audit findings are appropriately addressed. Consequently, stronger audit committee oversight should increase the likelihood that the external audit process produces credible and reliable outcomes.

Empirical evidence supports the relevance of the audit committee to audit quality. Ngawing, Setiawan, and Bwarleling (2025) examine the audit committee as a moderating determinant of audit quality and report that audit committee activity strengthens the effect of audit fee and firm size on audit quality. These findings suggest that an active audit committee may enhance the effectiveness of audit-related resources and organizational characteristics in producing higher audit quality.

Therefore, the audit committee is expected to have a positive direct relationship with audit quality.

H_7 Audit committee has a positive effect on audit quality.

2.6. The Moderating Role of the Audit Committee in the Relationship between Audit Fee and Audit Quality

The audit committee may influence how audit fees are translated into audit quality. A higher audit fee can provide auditors with additional resources, but the effectiveness of those resources depends partly on the governance environment in which the audit engagement is conducted. An active and effective audit committee can monitor the appropriateness of audit fees, communicate audit risks to external auditors, review the scope and results of audit procedures, and ensure that the resources allocated to the audit are used to address material risks.

Thus, the audit committee may strengthen the positive effect of audit fee on audit quality by ensuring that additional audit resources are directed toward improving audit effort rather than merely increasing the economic

value of the auditor–client relationship. This argument is consistent with the monitoring function emphasized by Agency Theory.

Prior evidence provides support for this moderating mechanism. Halim (2024) finds that the audit committee strengthens the relationship between audit fee and audit quality, while Ngawing et al. (2025) also report that audit committee activity strengthens the effect of audit fee on audit quality. However, Budiantoro, Santosa, Challen, Primadini, and Ningsih (2025), Syahrudin (2022) and Rompas and Agoes (2024) provide evidence that the audit committee does not necessarily moderate the audit fee–audit quality relationship.

These conflicting findings indicate that the governance role of the audit committee remains empirically unresolved. Given its monitoring responsibilities, an effective audit committee is expected to ensure that higher audit fees are associated with greater audit effort and stronger audit outcomes.

H_8. The audit committee strengthens the positive effect of audit fee on audit quality.

2.7. The Moderating Role of the Audit Committee in the Relationship between Audit Tenure and Audit Quality

The audit committee may also determine whether the benefits or risks associated with audit tenure dominate the auditor–client relationship. Longer audit tenure provides auditors with accumulated client-specific knowledge, but it may simultaneously increase familiarity threats. An effective audit committee can mitigate the latter by maintaining oversight of auditor independence, challenging excessive familiarity, evaluating auditor performance, and ensuring that the external auditor continues to exercise professional skepticism.

From a governance perspective, the audit committee therefore serves as a monitoring mechanism that can preserve the benefits of accumulated auditor knowledge while reducing the potential adverse effects of excessive auditor–client familiarity. The stronger the audit committee's oversight, the more likely the auditor is to maintain independence and professional skepticism despite a longer engagement period.

Empirical evidence regarding this moderating role is mixed. Syah and Mayangsari (2024) report that the audit committee strengthens the effect of audit tenure on audit quality. In contrast, Budiantoro et al. (2025) find that the audit committee is unable to moderate the relationship between audit tenure and audit quality, while Ngawing et al. (2025) similarly report no moderating effect of the audit committee on the audit tenure–audit quality relationship.

Although prior findings are inconsistent, an effective audit committee should strengthen the positive monitoring consequences of a longer auditor–client relationship by preserving auditor independence and ensuring continued professional skepticism. Accordingly, the audit committee is expected to mitigate the hypothesized negative relationship between audit tenure and audit quality.

H_9. The audit committee weakens the negative effect of audit tenure on audit quality.

2.8. The Moderating Role of the Audit Committee in the Relationship between Firm Size and Audit Quality

Firm size can create both opportunities and challenges for audit quality. Large firms generally possess greater resources, more sophisticated accounting systems, and stronger internal governance structures. However, their larger scale may also increase organizational complexity, transaction volume, and audit risk. The audit committee may play an important role in determining whether the organizational resources associated with firm size are effectively converted into higher audit quality.

An effective audit committee can strengthen monitoring of financial reporting and external auditing in large organizations. By actively reviewing financial statements, communicating with auditors, and overseeing audit risks, the audit committee can ensure that the complexity associated with firm size is adequately addressed. Consequently, strong audit committee oversight may enhance the positive contribution of firm resources to audit quality.

Empirical evidence provides support for this proposition. Halim (2024) finds that the audit committee strengthens the relationship between firm size and audit quality. Syah and Mayangsari (2024) also report that audit committee activity strengthens the effect of firm size on audit quality, while Ngawing et al. (2025) find a similar strengthening effect.

These findings suggest that the benefits associated with organizational scale are more likely to translate into higher audit quality when supported by effective audit committee oversight. Therefore, the audit committee is expected to strengthen the positive relationship between firm size and audit quality.

H_7: The audit committee strengthens the positive effect of firm size on audit quality.

3. METHODS

3.1. Research Design

This study employs a quantitative research approach with a descriptive and explanatory design. The quantitative approach is adopted to empirically examine the relationships between audit fee, audit tenure, and firm size and audit quality, as well as to investigate the moderating role of the audit committee in these relationships. The study uses secondary data structured as panel data, combining cross-sectional observations across firms with time-series observations over the study period.

The unit of analysis comprises telecommunications companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2025 period. Panel-data analysis is employed because it enables the study to account simultaneously for variations across firms and changes over time. All statistical analyses are conducted using EViews 13.

3.2. Population and Sample Selection

The population consists of all telecommunications companies listed on the IDX during 2020–2025. The initial population comprised 23 companies. The sample was selected using purposive sampling, whereby firms were included based on predetermined criteria consistent with the objectives of the study.

The sample selection criteria were as follows: (1) the company was listed in the telecommunications sector on the IDX throughout the 2020–2025 observation period; (2) the company published audited annual financial statements and annual reports for the observation period; (3) the company presented its financial statements in Indonesian rupiah; and (4) the company provided complete information required to measure all variables included in the study.

Based on these criteria, 18 companies were retained in the final sample. With six years of observation for each company, the study generated 108 firm-year observations. The resulting dataset therefore consists of 18 firms observed over six consecutive years.

3.3. Data Sources and Collection Procedure

This study relies on secondary data obtained from audited annual financial statements and annual reports of the sampled telecommunications companies for the 2020–2025 period. Data were collected using a documentation method by extracting information relevant to the measurement of the research variables from publicly available corporate reports.

The primary data sources were the official IDX website and the official websites of the sampled companies. The data collection process involved identifying eligible companies, obtaining their annual reports and audited financial statements for each observation year, and extracting the information required to construct the dependent, independent, and moderating variables.

3.4. Variable Measurement

The study includes audit quality as the dependent variable, audit fee, audit tenure, and firm size as independent variables, and audit committee as a moderating variable. The operationalization of each variable is described below.

3.4.1. Audit Quality

Audit quality (QLT) is conceptualized as a multidimensional construct reflecting the extent to which the audit process and its outcomes provide reliable assurance regarding the credibility of financial reporting. Rather than relying on a single proxy, this study operationalizes audit quality using a composite index comprising five parameters: audit firm reputation, audit opinion, audit delay, going concern, and financial statement restatement.

Each parameter is assigned a specific weight based on its relative importance in representing audit quality. Audit firm reputation receives a weight of 35%, audit opinion 20%, audit delay 15%, going concern 15%, and restatement 15%.

Audit firm reputation is measured using a dummy variable, with a value of 1 assigned to firms audited by a Big Four audit firm and 0 otherwise. Audit opinion is assigned a value of 1 when the company receives an unmodified or unqualified opinion and 0 otherwise. The going-concern indicator is assigned a value of 1 when no going-concern issue is reported and 0 when a going-concern issue or warning is identified.

Audit delay is coded as 1 when the annual financial statements are reported within the applicable regulatory deadline and 0 otherwise. The study refers to the reporting deadline stipulated under Financial Services Authority (Otoritas Jasa Keuangan, OJK) Regulation No. 14/POJK.04/2022. Restatement is coded as 1 when no restatement arising from prior-period reporting errors is identified and 0 when a restatement is reported. The five indicators are subsequently aggregated using their respective weights to construct the composite audit-quality index.

The use of a composite index is intended to capture the multidimensional nature of audit quality. The relatively greater weights assigned to audit firm reputation and audit opinion reflect their role as more direct indicators of audit quality, whereas audit delay, going concern, and restatement serve as supporting indicators.

The composite audit-quality index can be expressed as:

$$QLT = 0.35REP + 0.20OPN + 0.15GC + 0.15AD + 0.15RST$$

where REP represents audit firm reputation, OPN represents audit opinion, GC represents going-concern status, AD represents audit delay, and RST represents restatement.

3.4.2. Audit Fee

Audit fee (FEE) represents the remuneration paid by a company to its external auditor for audit services. In this study, audit fee is measured using the natural logarithm of the audit fee or professional fee disclosed in the company's financial reporting.

The measurement is expressed as:

$$FEE = Ln\ (Audit\ Fee)$$

The logarithmic transformation is applied to reduce differences in scale across firms and to provide a more appropriate measure for regression analysis.

3.4.3. Audit Tenure

Audit tenure (TNR) refers to the length of the continuous engagement between an audit firm and the same client. It is measured by counting the consecutive number of years during which the same audit firm provides audit services to the company.

The first year of the audit engagement is assigned a value of 1, with one additional unit assigned for each subsequent consecutive year. Accordingly, a higher value of TNR indicates a longer continuous auditor–client relationship.

3.4.4. Firm Size

Firm size (SIZE) reflects the economic scale of the company and is proxied by total assets. Firm size is measured using the natural logarithm of total assets:

SIZE = Ln (Total Assets)

The logarithmic transformation is employed to minimize scale differences among companies and facilitate the interpretation and estimation of the regression model.

3.4.5. Audit Committee

The audit committee (CMT) serves as the moderating variable in this study. It represents the corporate governance mechanism responsible for assisting the board of commissioners in overseeing financial reporting, internal control, and the performance of internal and external auditors.

The audit committee is measured using a dummy variable. A value of 1 is assigned when the company has more than three audit committee members, while a value of 0 is assigned when the company has three or fewer members or does not report an audit committee.

3.5. Panel Data Estimation

The empirical analysis employs panel-data regression. Three alternative estimation models are considered: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

The CEM pools cross-sectional and time-series observations and assumes that the intercept is homogeneous across firms and time. The FEM allows firm-specific intercepts to capture unobserved time-invariant heterogeneity across companies. In contrast, the REM treats firm-specific effects as random components of the error structure.

Model selection is performed using the Chow test, Hausman test, and Lagrange Multiplier (LM) test. The Chow test compares the CEM and FEM, the Hausman test compares the FEM and REM, and the LM test determines whether the REM provides a better specification than the CEM. The selected model is subsequently used for the primary regression analysis.

3.6. Empirical Model

The baseline regression model is specified to examine the effects of audit fee, audit tenure, and firm size on audit quality:

$$QLT_{it} = \alpha + \beta_1 FEE_{it} + \beta_2 TNR_{it} + \beta_3 SIZE_{it} + \varepsilon_{it}$$

where QLT denotes audit quality, FEE denotes audit fee, TNR denotes audit tenure, SIZE denotes firm size, α is the constant term, β_1–β_3 represent the estimated coefficients, and ε represents the error term.

3.7. Moderating Effect Analysis

To examine whether the audit committee moderates the relationships between the independent variables and audit quality, the study employs Moderated Regression Analysis (MRA). MRA introduces interaction terms between each independent variable and the moderating variable. The statistical significance and direction of the interaction

coefficient provide evidence regarding whether the audit committee strengthens or weakens the corresponding relationship.

Three interaction models are estimated.

Audit Fee × Audit Committee:

$$QLT_{it} = \alpha + \beta_1 FEE_{it} + \beta_2 CMT_{it} + \beta_3 (FEE \times CMT)_{it} + \varepsilon_{it}$$

Audit Tenure × Audit Committee:

$$QLT_{it} = \alpha + \beta_1 TNR_{it} + \beta_2 CMT_{it} + \beta_3 (TNR \times CMT)_{it} + \varepsilon_{it}$$

Firm Size × Audit Committee:

$$QLT_{it} = \alpha + \beta_1 SIZE_{it} + \beta_2 CMT_{it} + \beta_3 (SIZE \times CMT)_{it} + \varepsilon_{it}$$

The interaction coefficient (β_3) constitutes the principal parameter for evaluating the moderating effect. A statistically significant interaction coefficient indicates that the audit committee changes the magnitude or direction of the relationship between the respective independent variable and audit quality.

Following the moderator classification adopted in this study, the moderating variable can be categorized as a pure moderator when the moderator itself is not statistically significant but its interaction with the independent variable is significant; as a quasi moderator when both the moderator and interaction terms are significant; as a homologizer moderator when neither the moderator nor interaction term is significant; and as a predictor moderator when the moderator is significant but the interaction term is not significant.

3.8. Diagnostic Tests and Model Evaluation

Prior to hypothesis testing, the regression model is evaluated using relevant diagnostic procedures. Normality is assessed to examine the distribution of the residuals, although normality is not a prerequisite for obtaining best linear unbiased estimators (BLUE) under the ordinary least squares (OLS)-based CEM and FEM approaches. Heteroskedasticity testing is conducted to identify potential non-constant residual variance, while multicollinearity is assessed through the correlation among independent variables. A correlation coefficient exceeding 0.90 is treated as an indication of potential multicollinearity.

Model explanatory power is assessed using the coefficient of determination (R^2) and adjusted R^2. R^2 indicates the proportion of variation in audit quality explained by the predictors included in the model, while adjusted R^2 accounts for the number of explanatory variables in evaluating model performance. Overall model significance is assessed using the F-statistic. A probability value below 0.05 indicates that the model is statistically significant as a whole.

3.9. Hypothesis Testing

The hypotheses are tested using partial and simultaneous significance tests. The partial test evaluates whether each independent variable has a statistically significant association with audit quality while controlling for the other variables in the model. The simultaneous test evaluates whether the independent variables collectively explain variation in audit quality.

Statistical significance is evaluated at the 5% level. A probability value below 0.05 is interpreted as evidence of a statistically significant relationship, whereas a probability value above 0.05 indicates insufficient statistical evidence of an effect. For the moderation hypotheses, particular attention is given to the coefficient and significance of the interaction term between each independent variable and the audit committee.

3.10. Statistical Software

All statistical analyses are conducted using EViews 13. The software is used to perform descriptive statistics, panel-data model selection, panel regression estimation, diagnostic testing, model evaluation, and Moderated Regression Analysis.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

The study analyzes 108 firm-year observations from telecommunications companies listed on the Indonesia Stock Exchange over the 2020–2025 observation period. Table 1 presents the descriptive statistics for audit quality (QLT), audit fee (FEE), audit tenure (TNR), firm size (SIZE), and audit committee (CMT).

Table 1. Descriptive statistics.

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
Audit quality (QLT)	0.714	0.650	1.000	0.350	0.211
Audit fee (FEE)	20.986	20.442	25.221	18.126	1.811
Audit tenure (TNR)	2.472	2.000	6.000	1.000	1.424
Firm size (SIZE)	29.084	29.780	33.334	20.534	3.007
Audit committee (CMT)	0.204	0.000	1.000	0.000	0.405

The descriptive statistics indicate that the mean audit quality score is 0.714, with values ranging from 0.35 to 1.00. This suggests that, on average, the sampled telecommunications firms demonstrate relatively high audit-quality characteristics based on the composite index employed in this study. The standard deviation of 0.211 is substantially lower than the mean, indicating moderate dispersion across firms.

Audit fee has a mean of 20.986 and a standard deviation of 1.811 after logarithmic transformation. The relatively limited dispersion suggests that audit fees among sampled firms are concentrated around the sample mean, although differences remain between smaller firms and large market-leading telecommunications companies. Audit tenure ranges from one to six years, with a mean of 2.472 years. This indicates that the auditor–client relationship in the sample is generally relatively short to moderate in duration.

Firm size has a mean of 29.084 and a standard deviation of 3.007, indicating substantial variation in the economic scale of the sampled firms. This variation is relevant because the telecommunications industry comprises both large integrated operators and firms specializing in particular infrastructure segments.

The audit committee variable has a mean of 0.204, indicating that approximately 20.4% of the observations meet the study's classification of having more than three audit committee members. The median of zero further indicates that the majority of observations fall into the category coded as zero.

The Jarque–Bera statistics indicate that several variables and the regression residuals deviate from normality. More importantly, the residual diagnostic also reveals evidence of extreme observations and heteroskedasticity. The likelihood-ratio test for heteroskedasticity produces a probability value below 0.001, indicating significant heteroskedasticity. Consequently, Robust Least Squares (RLS) using M-estimation with Bisquare weighting was employed to reduce the influence of extreme observations and obtain more reliable coefficient estimates.

4.2. Panel Model Selection and Robust Estimation

The selection of the appropriate panel-data specification was initially conducted using the Chow and Hausman tests. The Chow test yielded a cross-section F probability below 0.001, indicating that the FEM was preferred to the

CEM. The Hausman test subsequently produced a probability value below 0.001, supporting the FEM over the REM. Therefore, FEM was identified as the appropriate panel-data specification.

However, diagnostic testing revealed that the residuals were not normally distributed and that the model exhibited significant heteroskedasticity. The likelihood-ratio test generated a probability value below 0.001, confirming the presence of heteroskedasticity. Given these characteristics and the presence of potentially influential observations, the final inference was based on Robust Least Squares estimation using M-estimation with Bisquare weights, a tuning constant of 4.685, and a median absolute deviation (MAD) scale.

This estimation strategy provides a more robust basis for inference because the conventional least-squares estimator can be sensitive to extreme observations and non-constant error variance. Accordingly, the coefficients reported below should be interpreted as robust estimates of the relationships between the explanatory variables and audit quality.

4.3. Robust Regression Results

The results of the Robust Least Squares estimation are presented in Table 2.

Table 2. Robust least squares regression results.

Variable	Coefficient	Std. Error	z-Statistic	p-value
Constant	-0.122	0.299	-0.409	0.682
Audit fee (FEE)	0.014	0.018	0.745	0.456
Audit tenure (TNR)	0.003	0.014	0.193	0.847
Firm size (SIZE)	0.017	0.008	2.042	0.041
Audit Committee (CMT)	0.653	1.227	0.532	0.595
FEE × CMT	-0.123	0.106	-1.157	0.247
TNR × CMT	0.015	0.037	0.391	0.696
SIZE × CMT	0.075	0.105	0.707	0.479

Note: Robust $Rw^2 = 0.461$; Rn^2 statistic = 54.999; $p < 0.001$.

Based on Table 2, the estimated robust regression model can be expressed as:

$$QLT = -0.122 + 0.014FEE + 0.003TNR + 0.017SIZE + 0.653CMT - 0.123(FEE \times CMT) + 0.015(TNR \times CMT) + 0.075(SIZE \times CMT)$$

The robust Rw-squared of 0.461 indicates that approximately 46.1% of the variation in audit quality is explained by the explanatory variables included in the robust model. The remaining variation is attributable to other factors not incorporated into the model. In addition, the Rn-squared statistic is 54.999 with a probability value below 0.001, indicating that the model is statistically significant as a whole.

4.4. The Effect of Audit Fee on Audit Quality

As shown in Table 2, the coefficient of audit fee is positive ($\beta = 0.014$), but statistically insignificant ($p = 0.456$). Thus, the empirical evidence does not support the proposition that audit fee systematically affects audit quality among Indonesian telecommunications companies during the observation period. Therefore, H1 is not supported.

The positive but statistically insignificant coefficient suggests that higher audit fees may be associated with slightly higher audit-quality scores, but the magnitude of the relationship is insufficient to establish a systematic effect. In other words, paying a higher audit fee does not necessarily translate into a measurable improvement in the composite audit-quality index.

One possible explanation is that audit fees primarily compensate auditors for differences in engagement complexity, audit effort, risk exposure, specialist requirements, and resource allocation rather than functioning as a

direct mechanism for purchasing higher audit quality. A complex telecommunications company may pay a substantially higher fee because its operations involve extensive infrastructure, multiple subsidiaries, large transaction volumes, and geographically dispersed assets. However, the higher fee does not automatically result in a higher audit-quality score.

This interpretation is particularly relevant to the multidimensional measurement of audit quality used in this study. The audit-quality index incorporates audit-firm reputation, audit opinion, audit delay, going-concern considerations, and restatement. Consequently, an increase in audit fee will improve the index only if it translates into observable improvements in these audit outcomes. A higher fee, by itself, does not guarantee an unmodified audit opinion, shorter audit delay, absence of going-concern concerns, or prevention of financial statement restatement.

From the perspective of Agency Theory, audit fees can be viewed as part of the monitoring costs incurred to reduce agency conflicts and information asymmetry. However, the insignificant coefficient suggests that the effectiveness of external auditing is not determined solely by the amount of monitoring expenditure. Professional standards, auditor independence, engagement quality controls, and regulatory requirements may constrain the extent to which additional fees influence audit outcomes.

The finding is consistent with previous studies, including Reschiwati et al. (2023), Hartono and Laksito (2022), Hutajulu (2023), Falisah et al. (2025), Farid and Baradja (2022), Trianjani et al. (2023) and Cahyanti et al. (2022).

4.5. The Effect of Audit Tenure on Audit Quality

Audit tenure has a positive coefficient of 0.003 but is statistically insignificant ($p = 0.847$). The result indicates that the length of the auditor–client relationship does not have a statistically detectable effect on audit quality in the sampled telecommunications companies. Because the coefficient is positive rather than negative and statistically insignificant, H2 is not supported.

The absence of a significant relationship suggests that a longer audit engagement does not necessarily improve or impair audit quality. Although longer tenure may enable auditors to accumulate client-specific knowledge and develop a better understanding of the client's business processes, such advantages may be offset by the potential familiarity threat associated with prolonged auditor–client relationships.

In the Indonesian regulatory environment, auditor independence and professional standards provide institutional constraints on the influence of audit tenure. The auditor is required to maintain professional skepticism and comply with applicable auditing and ethical standards regardless of the duration of the engagement. Consequently, the potential benefits of accumulated client knowledge may not be sufficiently large to produce a measurable change in the composite audit-quality index.

The finding is also understandable in the context of the telecommunications industry. Firms in this sector operate complex infrastructure, information systems, customer databases, and long-term investment structures. Although a continuing auditor may possess superior client-specific knowledge, the complexity of the underlying transactions means that substantial audit procedures remain necessary regardless of the auditor's tenure. Thus, familiarity with the client does not necessarily translate into a statistically significant improvement in audit outcomes.

From the perspective of Agency Theory, the result indicates that the monitoring function of the external auditor is not dependent on the duration of the engagement alone. Instead, monitoring effectiveness appears to be more closely associated with auditor independence, professional competence, internal quality-control mechanisms, and regulatory oversight.

The result is consistent with previous evidence reported by Hartono and Laksito (2022), Wardani et al. (2022), Purnamasari and Zenabia (2025), Damayanti and Aufa (2022), Baity and Fitriyana (2025), Putri and Astuti (2025),

Hasanah and Nelvirita (2024), Febrian and Maulana (2025), Da Costa and Azmiyanti (2025), Ariyanto and Fanani (2020) and Cahyanti et al. (2022).

4.6. The Effect of Firm Size on Audit Quality

Firm size has a positive and statistically significant coefficient ($\beta = 0.017$; $p = 0.041$). This result indicates that larger telecommunications companies tend to exhibit higher audit-quality scores than smaller firms, holding the other variables constant. Therefore, H3 is supported.

The positive association can be explained by differences in organizational resources, internal control systems, reporting infrastructure, and corporate governance. Larger firms generally have greater financial and organizational capacity to establish sophisticated internal control systems, employ qualified accounting personnel, implement integrated information systems, and maintain formal governance structures. These characteristics can facilitate the external auditor's ability to obtain sufficient and appropriate audit evidence.

Firm size may also influence auditor selection. Large companies have stronger incentives to appoint reputable audit firms because they face greater public visibility, regulatory scrutiny, litigation exposure, and information asymmetry. The appointment of highly reputable auditors can subsequently contribute to stronger audit processes and more credible financial reporting.

This mechanism is particularly important when audit quality is measured as a composite construct. Larger firms may have greater capacity to maintain timely reporting, avoid material misstatements requiring restatement, maintain credible audit opinions, and employ reputable audit firms. Consequently, improvements across several dimensions of the audit-quality index can occur simultaneously.

The finding is consistent with Agency Theory. As organizational size increases, the separation between ownership and management tends to become more complex, increasing potential agency conflicts and information asymmetry. Larger companies therefore have stronger incentives to strengthen external monitoring mechanisms. External auditing becomes an important governance mechanism for reducing information asymmetry and increasing the credibility of financial information.

The result can also be interpreted through Signaling Theory. A large company has greater incentives to communicate credible signals regarding the reliability of its financial information to investors and other stakeholders. Maintaining high-quality audited financial statements can function as a positive signal concerning management credibility, organizational stability, and corporate governance.

The empirical finding is consistent with prior studies, including Syafanisa Lizara and Subiyanto (2022), Mardyanti and Praptiningsih (2022), Falisah et al. (2025), Fauzan et al. (2025), Claudia (2023), Carp and Istrate (2021), Yanti and Wijaya (2020), Ramdani (2022) and Regina and Santioso (2023) but contrasts with Himawan and Risa (2025), Zahra and Hermanto (2024) and Lathifannisa et al. (2025) who report a negative effect of firm size on audit quality.

4.7. The Joint Effect of Audit Fee, Audit Tenure, and Firm Size on Audit Quality

The overall model is statistically significant, as indicated by an Rn-squared statistic of 54.999 with a probability value below 0.001. This result indicates that audit fee, audit tenure, and firm size collectively provide statistically significant explanatory power for audit quality.

The significance of the joint model, despite the insignificant partial effects of audit fee and audit tenure, is important. It indicates that audit quality is better understood as the outcome of multiple organizational and audit-related characteristics rather than being determined by a single factor. In the present setting, firm size contributes

significantly to audit quality, while audit fee and audit tenure provide additional explanatory information within the overall model.

From an Agency Theory perspective, the three variables represent different dimensions of the external monitoring environment. Audit fee represents the resources allocated to external monitoring, audit tenure reflects the continuity of the auditor–client relationship, and firm size captures organizational complexity and the magnitude of potential agency problems. Their combined contribution therefore provides a more comprehensive explanation of audit quality than any individual variable considered in isolation.

The result also suggests that audit quality in the telecommunications sector is shaped by the interaction between organizational characteristics and audit engagement characteristics. Large firms may have more sophisticated governance systems and greater resources to support the audit process, whereas audit fees and tenure alone do not appear sufficient to determine audit outcomes.

4.8. The Moderating Role of the Audit Committee

The moderation analysis provides important evidence regarding the role of the audit committee. As reported in Table 2, the direct coefficient of the audit committee is statistically insignificant ($\beta = 0.653$; $p = 0.595$). More importantly, the interaction between firm size and audit committee (SIZE × CMT) is also statistically insignificant ($\beta = 0.075$; $p = 0.479$).

Similarly, the interaction terms between audit fee and audit committee (FEE × CMT; $\beta = -0.123$; $p = 0.247$) and between audit tenure and audit committee (TNR × CMT; $\beta = 0.015$; $p = 0.696$) are statistically insignificant. Accordingly, H4, H5, H6, and H7 are not supported.

These results indicate that the audit committee does not significantly alter the relationship between firm size and audit quality. Based on the classification adopted in the study, the audit committee therefore functions as a homologizer moderator in the firm size–audit quality relationship, as well as in the audit fee–audit quality and audit tenure–audit quality relationships. In this configuration, the moderator has no significant direct effect and the interaction term is also statistically insignificant.

The finding challenges the expectation that a larger audit committee, as operationalized in this study, automatically strengthens the positive relationship between firm size and audit quality. One possible explanation is that the number of audit committee members may be an insufficient proxy for the effectiveness of the committee. Audit committee effectiveness depends not only on its size but also on independence, financial expertise, meeting frequency, attendance, authority, quality of oversight, and the extent to which recommendations are implemented by management.

This distinction is important because the mere existence or numerical size of an audit committee does not necessarily indicate that the committee actively performs its monitoring function. A formally established committee may comply with governance requirements without necessarily exercising substantial influence over financial reporting and external audit processes.

From the perspective of Agency Theory, the audit committee is expected to mitigate agency conflicts by strengthening oversight of management and supporting the independence of external auditors. However, the insignificant interaction coefficient indicates that this governance mechanism does not significantly modify the relationship between firm size and audit quality in the present sample.

The finding may also reflect the characteristics of the Indonesian telecommunications sector, where large firms already possess relatively sophisticated governance structures, internal control systems, and established relationships with professional audit firms. Consequently, the incremental contribution of the audit committee, as measured solely

by its membership size, may be limited. In other words, the positive effect of firm size on audit quality appears to operate largely independently of the numerical composition of the audit committee.

This result has an important implication for corporate governance research. Future studies should consider replacing the simple size-based measure of the audit committee with a multidimensional effectiveness index incorporating independence, financial expertise, meeting intensity, attendance, gender diversity, and the committee chair's expertise. Such measures may better capture the substantive rather than merely structural effectiveness of the audit committee.

4.9. Overall Interpretation of the Findings

Taken together, the findings indicate that audit quality among Indonesian telecommunications companies during 2020–2025 is more strongly associated with organizational scale than with the financial cost or duration of the external audit engagement. Firm size exhibits a positive and significant relationship with audit quality, whereas audit fee and audit tenure do not demonstrate statistically significant effects.

This pattern suggests that the institutional and organizational environment surrounding the audit may be more important than the nominal characteristics of the audit engagement itself. Larger companies generally possess greater resources, more formalized internal controls, stronger governance structures, and greater incentives to maintain credible financial reporting. These characteristics may facilitate the auditor's work and improve the observable outcomes captured by the composite audit-quality index.

At the same time, the insignificant effects of audit fee and audit tenure suggest that neither the amount paid to the auditor nor the length of the auditor–client relationship should be interpreted as a standalone guarantee of high audit quality. Audit quality is ultimately determined by a broader combination of auditor competence, independence, professional skepticism, engagement quality control, client characteristics, and institutional oversight.

The insignificant moderating effect of the audit committee further demonstrates that formal governance structures do not automatically translate into substantive monitoring effectiveness. The results therefore support a more nuanced interpretation of corporate governance: the effectiveness of governance mechanisms depends not only on whether a structure exists, but also on the quality and intensity of its implementation.

Overall, the evidence contributes to the audit-quality literature by demonstrating that organizational characteristics, particularly firm size, may play a more decisive role than conventional engagement characteristics such as audit fee and audit tenure. The findings also highlight the need to evaluate audit committee effectiveness using qualitative and functional dimensions rather than relying exclusively on structural measures.

5. CONCLUSION

This study examines the determinants of audit quality in telecommunications companies listed on the Indonesia Stock Exchange during the 2020–2025 period, focusing on audit fee, audit tenure, and firm size, while examining the moderating role of the audit committee. Based on the empirical findings, several conclusions can be drawn.

First, audit fee does not have a significant effect on audit quality. This finding indicates that variations in the professional fees paid to external auditors do not necessarily translate into differences in audit quality. The magnitude of the audit fee should therefore not be interpreted as a direct determinant of audit quality, as auditors remain subject to professional standards, independence requirements, and audit quality-control mechanisms.

Second, audit tenure does not have a significant effect on audit quality. The length of the auditor–client relationship does not appear to systematically alter audit quality. This finding suggests that the potential benefits of client-specific knowledge accumulated through longer engagements do not necessarily translate into measurable

improvements in audit quality, while professional standards and internal quality-control mechanisms may help maintain auditor objectivity throughout the engagement period.

Third, firm size has a positive and significant effect on audit quality. Larger telecommunications companies tend to demonstrate higher audit-quality scores. This relationship may reflect the greater availability of organizational resources, more developed internal control systems, more sophisticated accounting infrastructure, and stronger corporate governance mechanisms within larger firms. In addition, greater public visibility and regulatory scrutiny may create stronger incentives for large companies to maintain credible and transparent financial reporting.

Fourth, audit fee, audit tenure, and firm size jointly have a significant effect on audit quality. This finding indicates that audit quality is not determined by a single characteristic but is associated with a combination of audit-engagement characteristics and client-specific organizational characteristics.

Fifth, the audit committee does not significantly moderate the relationship between audit fee and audit quality. Similarly, the audit committee does not significantly moderate the relationship between audit tenure and audit quality. These findings indicate that a larger audit committee (more than three members) does not strengthen the respective relationships between these audit-engagement characteristics and audit quality.

Sixth, the audit committee does not significantly moderate the relationship between firm size and audit quality. The finding suggests that the positive association between firm size and audit quality operates independently of the measured audit committee characteristic. The result also indicates that the quantitative measure of audit committee structure used in this study may not sufficiently capture its substantive monitoring effectiveness.

5.1. Theoretical Contributions

This study contributes to the audit-quality literature in several respects. First, the findings provide empirical evidence that organizational characteristics, particularly firm size, may be more consequential for audit quality than transactional characteristics such as audit fee or relational characteristics such as audit tenure. This extends the understanding of audit quality beyond the conventional assumption that audit engagement characteristics alone determine audit outcomes.

Second, the insignificant moderating role of the audit committee highlights a potential gap between the formal establishment of corporate governance mechanisms and their substantive effectiveness. The existence of an audit committee does not necessarily imply that the committee has sufficient influence to alter the relationship between company characteristics and audit quality.

5.2. Practical Implications

The findings provide several implications for corporate management, boards of commissioners, audit firms, and regulators.

For management and boards of commissioners, the positive association between firm size and audit quality emphasizes the importance of maintaining strong internal control systems, accounting infrastructure, and corporate governance practices as organizational complexity increases. The audit committee should not function merely as a formal governance requirement but should actively participate in monitoring financial reporting and the external audit process.

For audit firms, the insignificant effects of audit fee and audit tenure reinforce the importance of maintaining consistent audit quality regardless of the economic value or duration of an engagement. Audit firms should preserve auditor independence, professional skepticism, and effective quality-control procedures throughout the engagement lifecycle.

For regulators and professional organizations, the findings suggest the need to strengthen the substantive evaluation of audit committee effectiveness. Regulatory oversight could place greater emphasis on indicators such as the financial expertise of committee members, independence, meeting frequency, attendance, and the effectiveness of communication between the audit committee, management, and external auditors.

5.3. Limitations and Directions for Future Research

This study has several limitations that should be considered when interpreting the findings. First, the sample is restricted to 18 telecommunications companies listed on the Indonesia Stock Exchange during 2020–2025, which may limit the generalizability of the findings to other industries and market contexts. Second, the model explains approximately 46.1% of the variation in audit quality, implying that substantial variation remains attributable to factors not incorporated into the model.

Third, audit quality is measured using a composite Audit Quality Index (AQI) based on five parameters: audit-firm reputation, audit opinion, going-concern opinion, audit delay, and restatement. Although this approach captures several dimensions of audit quality, it does not fully incorporate auditor-level characteristics such as competence, independence, and objectivity. Fourth, the audit committee is measured using a quantitative structural indicator, which may not adequately represent its substantive effectiveness or the quality of its individual members.

Future research should therefore consider extending the observation period and incorporating additional determinants of audit quality, such as audit-firm rotation, auditor competence, and audit-firm industry specialization. Future studies should also develop broader measures of audit quality by incorporating additional dimensions and employ more substantive indicators of audit committee effectiveness, including meeting frequency, financial expertise, independence, and member competency.

Overall, the findings suggest that improving audit quality in the Indonesian telecommunications sector requires greater attention to the organizational capacity and governance environment of audit clients, rather than relying solely on audit fees, auditor tenure, or the formal existence of an audit committee.

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