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Firm Size, Firm Complexity, And Audit Fees in Financial Statement Restatement: The Moderating Role of Auditor Industry Specialization

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ABSTRACT: This study examines whether firm size, firm complexity, and audit fees are associated with financial statement restatement, and whether auditor industry specialization moderates the relationship between firm complexity and restatement. The study uses public companies in the industrial and infrastructure sectors listed on the Indonesia Stock Exchange during 2020–2024. Using purposive sampling, 73 firms were selected, producing 365 firm-year observations. Financial statement restatement is measured as a binary outcome, while firm size is measured by the natural logarithm of total assets, firm complexity by the number of subsidiaries, audit fees by the natural logarithm of disclosed audit fees, and auditor industry specialization by a market-share approach. Binary logistic regression is employed to test the hypotheses. The results show that firm size is significantly associated with financial statement restatement (B = 0.003; p = 0.018), as is firm complexity (B = 0.047; p = 0.033). Audit fees are not significantly associated with restatement (B = −0.002; p = 0.353). The interaction between firm complexity and auditor industry specialization is negative and statistically significant (B = −0.059; p = 0.011), indicating that higher levels of auditor industry specialization weaken the positive association between firm complexity and financial statement restatement. The findings suggest that the relationship between firm complexity and financial statement restatement varies with the level of auditor industry specialization, highlighting the relevance of industry-specific audit expertise in addressing risks associated with complex firms.

KEYWORDS: Financial Statement Restatement, Firm Complexity, Firm Size, Audit Fees, Auditor Industry Specialization

INTRODUCTION

Financial statements are an important means through which listed companies communicate their financial position and performance to investors, creditors, regulators, and other stakeholders. The usefulness of this information depends largely on its credibility and reliability. When material errors are identified after financial statements have been issued, previously reported information may need to be corrected through a financial statement restatement. Restatement is therefore not merely a technical accounting correction. It indicates that information previously available to users has subsequently required revision and may affect how users assess the reliability of financial reporting (Palmrose et al., 2004; Habib et al., 2021).

The Indonesian setting provides a relevant context for examining this issue because listed companies operate within an increasingly demanding financial reporting environment. Principle-based accounting standards require professional judgment in areas such as revenue recognition, longterm contracts, estimates, and measurement (Chychyla et al., 2019). These requirements may become more challenging when companies have extensive operations, complex organizational structures, and substantial consolidation requirements. In such circumstances, maintaining consistent and accurate financial information across different business units may require greater coordination and review (Silva et al., 2019).

Industrial and infrastructure companies provide a particularly relevant setting for this examination. Companies in these sectors may have substantial asset bases, diversified activities, long-term projects, and multiple subsidiaries that require consolidation. These characteristics create reporting environments in which the preparation and audit of financial statements may involve considerable coordination across organizational units. The complexity associated with these activities may consequently increase the challenges involved in maintaining reliable financial reporting (Silva et al., 2019; Ahmed et al., 2023).

Previous studies have not reached consistent conclusions regarding the factors associated with financial statement restatement. Evidence concerning firm size, for example, remains mixed. Susanto and Syahputri (2022), Lodikero and Abdulasisi (2020), and Akadiati (2018) report

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significant associations between firm size and restatement, whereas Wardani et al. (2022), Nugroho and Lindrawati (2021), and Emuldo and Puspitasari (2022) do not find a significant relationship. Similar variation can be observed in research examining firm complexity and audit fees. Studies of audit fees, in particular, generally report no significant relationship with financial statement restatement (Wardani et al., 2022; Pangestu & Akwila, 2024; Wijaya & Susilandari, 2022). These differences suggest that the occurrence of restatement may not be adequately explained by a single characteristic of the client or the audit engagement.

Agency Theory provides a useful perspective for understanding why financial reporting problems may arise in this setting. Managers generally possess more detailed information about the company's operations, transactions, and financial condition than external stakeholders. This information asymmetry can make it difficult for investors and other users to evaluate the reliability of financial information before it is disclosed. The monitoring role of external auditing is therefore important because independent examination provides an additional mechanism for assessing information prepared by management (Jensen & Meckling, 1976). As firms become larger or more organizationally complex, the information and monitoring challenges associated with financial reporting may also increase.

From this perspective, firm size and firm complexity capture different dimensions of the reporting environment. Larger firms generally generate greater volumes of financial information and operate across broader organizational structures, whereas firms with greater complexity must coordinate information from multiple subsidiaries and business activities. Both conditions may increase the demands placed on the preparation and consolidation of financial statements. Audit fees represent a different dimension because they reflect the economic terms of an audit engagement and may incorporate client size, complexity, audit risk, expected effort, and the resources required to perform the audit. Examining these variables together therefore provides an opportunity to consider both company-related and audit-related factors associated with financial statement restatement.

Auditor industry specialization provides an additional perspective, particularly in relation to firm complexity. Auditors that repeatedly serve clients within a particular industry can accumulate knowledge of industry-specific transactions, business models, accounting practices, regulatory requirements, and reporting risks. Such knowledge may be useful when auditing companies with complex organizational structures because the auditor needs to understand not only the volume of financial information but also the economic characteristics underlying the transactions being reported. Previous research suggests that industry-specific knowledge can enhance auditors' ability to assess risks and identify potential misstatements (Romanus et al., 2008; Donatella, 2022; Mohd Kharuddin & Basioudis, 2022).

Against this background, we examine whether auditor industry specialization changes the relationship between firm complexity and financial statement restatement. Our argument is that the reporting challenges associated with greater complexity may not have the same implications across all audit engagements. Industry-specialized auditors may be better positioned to interpret complex transactions, recognize unusual reporting patterns, and direct audit attention toward areas that require greater scrutiny. We therefore examine auditor industry specialization as a moderating factor rather than only as an auditor characteristic.

This study contributes to the existing literature in three respects. First, it provides empirical evidence from companies in the Industrial and Infrastructure sectors listed on the Indonesia Stock Exchange during 2020–2024, a setting that has received relatively limited attention in research on financial statement restatement. Second, it examines firm size, firm complexity, and audit fees jointly, thereby considering several company and audit engagement characteristics within a single empirical model. Third, it examines auditor industry specialization as a moderator of the relationship between firm complexity and financial statement restatement. This approach allows us to consider whether the association between organizational complexity and restatement varies according to the industry-specific expertise of the auditor.

LITERATURE REVIEW

Agency Theory

Agency Theory explains the relationship between principals, such as shareholders, and agents, namely managers who are entrusted with managing the company on behalf of its owners. Because managers are directly involved in the company's daily operations, they generally have greater access to information about the firm's transactions, financial condition, and operating activities than external stakeholders. This difference in information creates information asymmetry and can make it more difficult for shareholders and other users of financial statements to monitor managerial actions. Agency Theory therefore emphasizes the importance of monitoring mechanisms that can reduce information asymmetry and limit potential conflicts of interest between managers and owners (Jensen & Meckling, 1976; Eisenhardt, 1989).

This perspective is relevant to financial reporting because external stakeholders largely depend on information disclosed by management when evaluating a company's financial position and performance. The information advantage held by management may make reporting problems more difficult for external users to identify before the financial statements are issued. External auditing serves as one of the mechanisms for addressing this problem by providing independent examination of the financial information prepared by management. Effective audit procedures can help identify material errors or inconsistencies and provide greater assurance regarding the information reported to external users.

From this perspective, financial statement restatement can be viewed as an indication that previously reported financial information required subsequent correction. A restatement does not necessarily imply managerial opportunism or audit failure, since reporting errors may arise from various sources. However, the occurrence of a restatement is relevant to Agency Theory because it reflects a situation in which information available to external users was subsequently revised. The theory therefore provides a basis for examining organizational and audit-related characteristics that may be associated with the likelihood of financial statement restatement (Jensen & Meckling, 1976; Bergh et al., 2019).

Financial Statement Restatement

Financial statement restatement refers to the correction or revision of previously issued financial statements when errors or other reporting problems are identified. Such corrections may involve recognition, measurement, classification, disclosure, or other aspects of financial reporting. Restatements are important because investors and other stakeholders may have relied on previously reported information when making economic decisions. When previously reported financial information is subsequently corrected, the reliability of the information available to users is called

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into question. Prior research has linked financial statement restatement to reporting complexity, corporate governance, audit-related factors, and market consequences (Palmrose et al., 2004; Habib et al., 2021).

The occurrence of a restatement indicates that information reported in previously issued financial statements required subsequent correction. The likelihood of such correction may differ across firms depending on their organizational characteristics and financial reporting environment. Larger firms generally process greater volumes of financial information and operate across broader business activities, while firms with multiple subsidiaries face additional requirements for coordination and consolidation. Audit-related characteristics may also be relevant because the scope of an engagement, client-specific risks, and the resources required to perform audit procedures can differ across firms. Against this background, examining firm size, firm complexity, and audit fees allows us to consider several organizational and audit-related factors that may be associated with financial statement restatement (Nugroho & Lindrawati, 2021; Emuldo & Puspitasari, 2022; Wardani et al., 2022).

In this study, financial statement restatement is therefore treated as an outcome that may reflect the need to correct previously reported financial information. The analysis focuses on whether differences in firm size, firm complexity, and audit fees are associated with the occurrence of restatement and further examines whether auditor industry specialization changes the relationship between firm complexity and restatement.

Hypothesis Development Firm Size and Financial Statement Restatement

Larger firms generally have broader business activities, more organizational units, and greater volumes of financial information to process and report. As the scale of operations increases, management must coordinate financial information from different activities and reporting areas while making a greater number of accounting and reporting decisions. These conditions may make it more difficult to maintain the accuracy and consistency of financial information, particularly when reporting processes involve extensive coordination and consolidation. Previous studies have reported a positive relationship between firm size and financial statement restatement (Nugroho & Lindrawati, 2021; Susanto & Syahputri, 2022).

Firm size may also be associated with the likelihood that reporting problems are identified after the financial statements have been issued. Large listed firms generally receive greater attention from investors, regulators, and auditors, increasing the visibility of their financial reporting. Consequently, reporting errors or accounting issues may be more likely to be detected and subsequently corrected through a restatement. Thus, the positive relationship between firm size and financial statement restatement may reflect both the greater reporting demands associated with larger operations and the greater external scrutiny faced by large firms. Based on this reasoning, we propose the following hypothesis:

H_1: Firm size is positively associated with financial statement restatement

Firm Complexity and Financial Statement Restatement

Firm complexity may arise from the number of subsidiaries, diversification of business activities, and the need to consolidate financial information from different organizational units. As the number of subsidiaries increases, the preparation of consolidated financial statements requires greater coordination of financial information across entities. Differences in transactions, accounting treatments, and reporting practices may create additional challenges in classification, measurement, recognition, and consolidation. These conditions may increase the possibility that reporting errors or inconsistencies are not identified before the financial statements are issued. Prior studies also indicate that greater firm complexity is associated with higher financial reporting risk (Emuldo & Puspitasari, 2022; Ahmed et al., 2023).

The reporting challenges associated with complexity may become more pronounced when several subsidiaries are involved in the preparation of consolidated accounts. Financial information has to be collected, reviewed, reconciled, and consolidated across business units, while intercompany transactions and differences in accounting treatments need to be appropriately addressed. At the same time, a more complex organizational structure may increase information asymmetry between management and external stakeholders, making it more difficult for external parties to assess the reliability of reported information. These conditions provide a basis for expecting that firms with greater organizational complexity may face a higher likelihood of financial statement restatement. Accordingly, we propose the following hypothesis:

H_2: Firm complexity is positively associated with financial statement restatement

Audit Fees and Financial Statement Restatement

Higher audit fees may reflect greater auditor effort, including the time, personnel, and resources allocated to an audit engagement. Greater audit effort may provide auditors with more opportunity to examine financial information, evaluate accounting treatments, and identify material misstatements before the financial statements are issued. From this perspective, a higher level of audit fees may be associated with a lower likelihood of financial statement restatement. However, audit fees do not directly indicate the effectiveness of the audit because the amount charged may also reflect the characteristics and risks of the client. Prior studies have reported mixed evidence regarding the relationship between audit fees and financial statement restatement (Wardani et al., 2022; Pangestu & Akwila, 2024; Wijaya & Susilandari, 2022).

The relationship may therefore operate in two directions. Higher fees may indicate greater audit effort and more extensive procedures, which could increase the likelihood that reporting errors are identified before the financial statements are issued. Conversely, higher fees may result from greater client complexity, higher audit risk, or the additional resources required to complete the engagement. In the latter case, the fee reflects the demands of the engagement rather than a greater ability to prevent subsequent restatement. Given these competing explanations and the mixed findings in prior research, we consider the relationship between audit fees and financial statement restatement an empirical question and propose the following hypothesis:

H_3: Audit fees are negatively associated with financial statement restatement

Auditor Industry Specialization as a Moderator of the Relationship between Firm Complexity and Financial Statement Restatement

Auditor industry specialization may weaken the positive relationship between firm complexity and financial statement restatement. As firms operate through more subsidiaries, diversified activities, and increasingly complex transactions, auditors face greater challenges in understanding the underlying business activities and assessing the related accounting treatments and audit risks. In these circumstances, industry-specific knowledge becomes particularly relevant. Auditors with experience in a particular industry are more familiar with its business characteristics, typical transactions, reporting practices, and regulatory requirements. Such knowledge can help them focus their audit procedures on areas that are

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more susceptible to reporting problems and respond more appropriately to industry-specific risks (Romanus et al., 2008; Mohd Kharuddin & Basioudis, 2022).

The relevance of industry specialization becomes greater as organizational complexity increases. Industry-specialized auditors may be more familiar with unusual transactions, complex accounting judgments, and reporting issues that commonly arise within the industry. Their experience with similar clients can also provide a useful basis for evaluating whether accounting treatments and reported amounts are consistent with the economic characteristics of the business. This experience may improve the auditor's ability to identify inconsistencies and reporting issues before the financial statements are issued. As a result, the risks associated with greater firm complexity may be less likely to translate into subsequent financial statement restatement when the audit is performed by an industry-specialized auditor (Donatella, 2022).

Based on this reasoning, we expect auditor industry specialization to weaken the positive relationship between firm complexity and financial statement restatement. Accordingly, we propose the following hypothesis:

H_4: Auditor industry specialization weakens the positive association between firm complexity and financial restatement.

Conceptual Framework

Based on the theoretical perspectives and previous empirical findings, we develop a conceptual framework to examine the factors associated with financial statement restatement. The framework considers firm size, firm complexity, and audit fees as explanatory variables. We expect these factors to be related to the likelihood of financial statement restatement, although the direction and strength of the relationships may differ across firms. Firm size represents the scale of the company and the scope of its operations, while firm complexity reflects the organizational and reporting challenges associated with operating through multiple entities. Audit fees are included as an audit-related characteristic that may reflect the resources and effort required to conduct an audit engagement.

We further consider auditor industry specialization as a moderating variable in the relationship between firm complexity and financial statement restatement. Our reasoning is that auditors with greater experience in a particular industry may have a better understanding of industry-specific transactions, accounting practices, regulatory requirements, and reporting risks. This knowledge may affect how audit teams identify and respond to the risks associated with complex organizational structures. Accordingly, we propose that auditor industry specialization may change the strength of the relationship between firm complexity and financial statement restatement.

Figure 1 presents the conceptual framework developed in this study. Firm size, firm complexity, and audit fees are specified as the independent variables, while financial statement restatement is the dependent variable. Auditor industry specialization is positioned as a moderator of the relationship between firm complexity and financial statement restatement. The relationships proposed in the framework provide the basis for the formulation and subsequent empirical testing of Hypotheses H1, H2, H3, and H4.

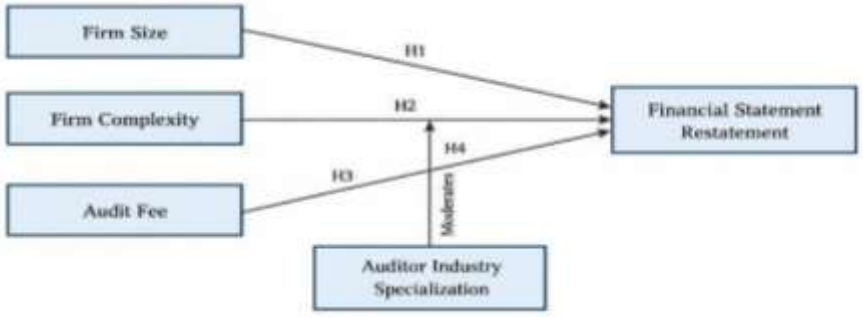


Figure 1. Conceptual Framework

MATERIALS AND METHODS

Data and Sample

This study employs a quantitative explanatory design based on secondary data. The population consists of companies classified in the industrial and infrastructure sectors and listed on the Indonesia Stock Exchange (IDX) during 2020–2024. The sample was selected using purposive sampling based on three criteria: (1) the company was classified in one of the relevant sectors throughout the observation period, (2) annual reports were available continuously for 2020–2024, and (3) the company remained listed throughout the observation period. Of the 135 companies identified in the population, 62 were excluded because complete annual reports were not available for the entire observation period. No companies were excluded due to delisting. The resulting sample comprises 73 companies, yielding 365 firm-year observations for the analysis. The sample selection process is presented in Table 1.

Table 1: Sample Selection Process

Selection criterion	Firms
Industrial and infrastructure firms listed on IDX, 2020–2024	135
Continuous annual report not available	(62)
Delisted during observation period	0
Final sample	73
Observation years	5
Firm-year observations	365

Source: Authors' compilation based on annual reports and Indonesia Stock Exchange (IDX) data.

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Variable Measurement

Table 2 summarizes how each variable is measured and identifies the sources from which the data were obtained. The selected measures reflect the specific characteristics of the variables examined in this study and are based primarily on information reported by the sampled companies.

Table 2: Variable Measurement

Variable	Measurement
Financial statement restatement (R)	Dummy variable: 1 if the company restated its financial statements; 0 otherwise
Firm size (FS)	Natural logarithm of total assets
Firm complexity (FC)	Number of subsidiaries.
Audit fee (AF)	Natural logarithm of audit fees
Auditor industry specialization (AIS)	Dummy based on industry market share in the industrial and infrastructure sectors; 1 if market share >30%, otherwise 0.
Interaction (FC*AIS)	Firm complexity * Auditor Industry Specialization.

Source: Prior studies and authors' calculation

Empirical Model

The hypotheses are tested using an empirical model that examines the relationship between firm size, firm complexity, audit fees, and financial statement restatement. The model also considers whether auditor industry specialization changes the relationship between firm complexity and financial statement restatement.

$$\ln(P/1-P) = \beta 0 + \beta 1FS + \beta 2FC + \beta 3AF + \beta 4AIS + \beta 5(FC*AIS)$$

where:

$\ln[P/(1-P)]$ = log odds of financial statement restatement

FS = firm size, measured as the natural logarithm of total assets

FC = firm complexity, measured based on the number of subsidiaries

AF = audit fees, measured as the natural logarithm of audit fees

AIS = auditor industry specialization

FC*AIS = interaction between firm complexity and auditor industry specialization β_0 = constant $\beta_1 - \beta_5$ = regression coefficients

RESULTS Descriptive Statistics

The descriptive statistics for the variables used in this study are reported in Table 3. The table shows the minimum, maximum, mean, and standard deviation values for the continuous variables and the distribution of the financial statement restatement variable. The results indicate the extent of variation across the observations and provide an initial overview of the characteristics of the sample.

Table 3: Descriptive Statistics Panel A. Continuous Variables

Variable	N	Minimum	Maximum	Mean	Std. Dev.
Firm Size	365	17.57	33.79	28.68	2.21
Firm Complexity	365	0	250	10.72	29.77
Audit Fee	365	16.58	25.15	20.41	1.31

Panel B. Binary Variables

Variable	N	0 (%)	1 (%)
Restatement	365	88.0	12
Auditor Specialization	365	48.0	52

Source: **processed data**

Table 3 reports the descriptive statistics for the study variables. Financial statement restatement occurred in 47 of the 365 observations (12%), while 318 observations (88%) did not involve a restatement. Auditor specialization was also relatively balanced, with specialist auditors accounting for 52% of the observations and non-specialist auditors accounting for the remaining 48%. Firm complexity varied substantially across the sample, ranging from companies with no subsidiaries to those with 250 subsidiaries. Firm size has a mean of 28.68 and a standard deviation of 2.21, showing relatively little variation across the sampled firms. Firm complexity is more widely dispersed, with a mean of 10.72 and a standard deviation of 29.77. The difference between these two measures reflects the wide range in the number of subsidiaries among the firms in the sample. Audit fees have a mean of 20.41 and a standard deviation of 1.31, indicating less dispersion than firm complexity. The distribution of the variables is consistent with the characteristics of the sample. Restatements occur in a relatively small proportion of observations, whereas auditor specialization is distributed fairly evenly between specialist and non-specialist auditors. The variation in firm complexity is particularly notable and is relevant to the subsequent analysis of its relationship with financial statement restatement. **Logistic Regression and Model Fit**

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The logistic regression results and model fit statistics are reported in Table 4. The results include the initial and final −2 Log Likelihood values, the Hosmer–Lemeshow test, Cox and Snell and Nagelkerke R^2, and the model's overall classification accuracy.

Table 4: Logistic regression and model fit

Statistic	Result
Initial −2 Log Likelihood	280.347
Final −2 Log Likelihood	262.790
Reduction in −2LL	17.557
Hosmer–Lemeshow χ^2	5.280
Hosmer–Lemeshow p-value	0.727
Cox & Snell R^2	0.047
Nagelkerke R^2	0.088
Overall classification accuracy	87.1%

Source: **processed data**

The final −2 Log Likelihood decreases from 280.347 in the initial model to 262.790 after the explanatory variables are included. This reduction indicates an improvement in model fit. The Hosmer–Lemeshow test produces a p-value of 0.727, indicating no statistically significant evidence of a lack of fit. The Nagelkerke R^2 of 0.088 suggests that the variables included in the model account for a relatively small share of the variation in financial statement restatement. The model correctly classifies 87.1% of the observations. This figure, however, should be interpreted with caution because most observations belong to the non-restatement group. The model does not correctly classify the observed restatement cases, which limits the interpretation of the overall classification accuracy. The results suggest that, although the model fits the data reasonably well based on the goodness-of-fit measures, financial statement restatement may also be related to factors beyond those examined in this study.

Hypothesis Testing

Table 5 presents the results of the logistic regression analysis, including the estimated coefficients (B), Wald statistics, p-values, odds ratios [Exp(B)], and decisions for each hypothesis. The results show the effects of firm size, firm complexity, audit fees, auditor specialization, and the interaction between firm complexity and auditor specialization on the likelihood of financial statement restatement.

Table 5: Logistic Regression Results

Variable	B	Wald	p-value	Exp(B)	Decision
Firm Size	0.003	5.630	0.018	1.003	H1 supported
Firm Complexity	0.047	4.554	0.033	1.048	H2 supported
Audit Fee	−0.002	0.863	0.353	0.998	H3 not supported
Auditor Specialization	0.294	0.458	0.499	1.342	main effect not significant
Complexity * Specialization	−0.059	6.387	0.011	0.943	H4 supported
Constant	−7.641	6.332	0.012	0.000	—

Source: **processed data**

Based on the results presented in Table 5, the estimated logistic regression model is expressed as follows:

$$\ln[P/(1-P)] = -7.641 + 0.003FS + 0.047FC - 0.002AF + 0.294AIS - 0.059(FC*AIS)$$

The results show that Firm Size is positively associated with financial statement restatement, with a coefficient of 0.003 and a p-value of 0.018, indicating a statistically significant relationship at the 5% level. Firm Complexity also has a positive and statistically significant relationship with financial statement restatement, with a coefficient of 0.047 and a p-value of 0.033. These findings support H1 and H2.

Audit Fee has a negative coefficient of −0.002, but the relationship is not statistically significant (p = 0.353). The results therefore do not provide sufficient evidence that audit fees are associated with the likelihood of financial statement restatement. Auditor Industry Specialization also has no statistically significant direct effect (B = 0.294; p = 0.499). Since the main effect of auditor specialization was not hypothesized, this coefficient is included as part of the moderation model rather than treated as a separate hypothesis test.

The interaction between Firm Complexity and Auditor Industry Specialization is negative and statistically significant (B = −0.059; p = 0.011). This finding indicates that auditor industry specialization weakens the positive relationship between firm complexity and financial statement restatement. Thus, H4 is supported.

DISCUSSION

Firm Size and Financial Statement Restatement

Our findings show a positive relationship between firm size and financial statement restatement, which is consistent with the findings reported by Nugroho and Lindrawati (2021) and Susanto and Syahputri (2022). We interpret this relationship primarily in terms of the reporting demands associated with larger firms. As firms become larger, their business activities, transaction volumes, organizational structures, and reporting units generally become more extensive. Financial information consequently has to be collected, reviewed, consolidated, and reported from a greater number of activities and organizational units. The increasing volume and diversity of information may make the reporting process more difficult

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to coordinate and increase the possibility of errors, inconsistencies, or inappropriate accounting treatments that are not identified before the financial statements are issued.

The agency perspective also helps explain the finding. The growth of a firm can widen the separation between shareholders and management and may increase information asymmetry between management and external stakeholders. In such circumstances, external parties may face greater difficulty in evaluating the completeness and reliability of the information reported by management. At the same time, larger listed firms generally attract greater attention from investors, regulators, and auditors. This visibility may increase the probability that reporting errors or accounting issues are subsequently identified and corrected through a restatement. From this perspective, the positive relationship observed in our study may reflect not only the greater complexity of reporting in larger firms but also the greater likelihood that reporting problems will be detected in firms subject to closer external scrutiny.

Firm Complexity and Financial Statement Restatement

Our finding of a positive relationship between firm complexity and financial statement restatement is consistent with the evidence reported by Emuldo and Puspitasari (2022) and Ahmed et al. (2023). We interpret this result in relation to the additional coordination required when financial information comes from multiple entities. A company with more subsidiaries has to collect, review, reconcile, and consolidate information from a larger number of reporting units before the consolidated financial statements can be finalized. Differences in transactions, reporting practices, and accounting treatments across subsidiaries may make this process more demanding. As the number of entities increases, the quality and timeliness of information provided by each subsidiary become increasingly important. Errors or inconsistencies that are not identified during the consolidation process may consequently remain in the initially issued financial statements and require subsequent correction.

This explanation is particularly relevant to the industrial and infrastructure companies examined in our study. Companies in these sectors may operate through subsidiaries with different business activities and operating characteristics. Preparing consolidated financial statements in such circumstances requires more than simply handling a larger volume of information. It also requires the parent company to reconcile transactions between entities and ensure that accounting policies are applied consistently throughout the group. Where coordination or review processes are less effective, reporting issues may remain unresolved when the financial statements are initially prepared.

The difference between our findings and studies that report no significant relationship may be related to differences in institutional environments, industry characteristics, observation periods, or the way firm complexity is measured. In this study, complexity is measured by the number of subsidiaries, which captures the structural dimension of complexity associated with the extent of consolidation within a corporate group. We consider this measure particularly relevant to the reporting environment examined because financial reporting depends on information generated by multiple entities. The result therefore suggests that the structure of a corporate group deserves attention when examining factors associated with financial statement restatement.

Audit Fees and Financial Statement Restatement

Our finding that audit fees are not significantly associated with financial statement restatement is consistent with the findings of Wardani et al. (2022), Pangestu and Akwila (2024), and Wijaya and Susilandari (2022). We interpret this result by considering the way audit fees are determined. Audit fees reflect a range of engagement characteristics, including client size and complexity, audit risk, the scope of audit procedures, and the resources required to complete the engagement. A higher audit fee, therefore, does not necessarily indicate that the audit is more effective in preventing reporting errors. In some cases, a higher fee may simply reflect the additional effort and resources required to address a more complex or higher-risk engagement.

The absence of a significant relationship may also be related to the sources of financial reporting problems. Restatements can result from weaknesses in accounting systems and internal controls, management estimates, or problems in the preparation and consolidation of financial information. These issues arise within the client's financial reporting process and may not be directly reflected in the amount paid for external audit services. From this perspective, increasing audit expenditure does not necessarily eliminate the underlying reporting problems that may later result in a restatement. Our finding consequently draws attention to the importance of the broader financial reporting environment, including the quality of internal controls, accounting procedures, and the reliability of information used in preparing the financial statements.

The difference between our finding and studies that report a significant relationship may reflect differences in the determinants of audit fees across industries, institutional settings, and observation periods. Audit pricing can incorporate client-specific risk, organizational complexity, expected audit effort, and other engagement characteristics. Audit fees therefore represent the economic terms of an audit engagement rather than a direct measure of its effectiveness in preventing subsequent financial statement corrections. In our view, the relationship between audit fees and restatement is better understood by considering the characteristics of the engagement and the client's financial reporting environment together rather than treating audit fees as a standalone indicator of restatement risk.

Auditor Industry Specialization as a Moderator

Our results indicate that auditor industry specialization weakens the positive relationship between firm complexity and financial statement restatement. We interpret this finding in terms of the industry-specific knowledge that auditors develop through repeated experience with clients operating in the same industry. Familiarity with industry-specific transactions, business models, accounting practices, and regulatory requirements can provide auditors with a more informed basis for evaluating complex reporting matters. This experience becomes particularly relevant when an audit involves multiple subsidiaries or business units, where differences in operations and accounting treatments may make inconsistencies more difficult to identify. This interpretation is consistent with the findings of Romanus et al. (2008), Donatella (2022), and Mohd Kharuddin and Basioudis (2022).

The moderating role of industry specialization can also be understood from the way auditors allocate attention during complex engagements. When a corporate group consists of several entities with different activities, auditors need to identify areas where the nature of the transactions or reporting practices may create greater risk of misstatement. Auditors with substantial experience in a particular industry may be better positioned to recognize unusual transactions and reporting patterns based on their previous exposure to similar engagements. Their industry knowledge may also assist in evaluating whether accounting treatments are appropriate for the characteristics of the industry and whether additional audit procedures are

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necessary. In this sense, industry specialization represents a knowledge-based resource that complements the standard audit procedures applied to complex clients.

The interaction effect observed in our study suggests that the implications of firm complexity for financial statement restatement are not necessarily uniform across audit engagements. A complex corporate structure may create additional reporting challenges, but the extent to which those challenges are associated with subsequent restatement appears to depend partly on the auditor's industry-specific expertise. Industry specialization may help audit teams understand the underlying transactions, identify areas requiring greater attention, and respond to the information and coordination challenges created by multiple entities. Our finding therefore supports the view that auditor industry specialization is relevant not only as an auditor characteristic but also in understanding how firms' organizational complexity relates to financial reporting outcomes.

CONCLUSION

This study examines whether firm size, firm complexity, and audit fees are associated with financial statement restatement and whether auditor industry specialization moderates the relationship between firm complexity and restatement. Using 365 firm-year observations from 73 companies in the Industrial and Infrastructure sectors listed on the Indonesia Stock Exchange during 2020–2024, we find that both firm size and firm complexity are positively associated with financial statement restatement. In contrast, audit fees do not have a statistically significant relationship with restatement.

Our analysis also provides evidence that auditor industry specialization changes the relationship between firm complexity and financial statement restatement. The negative and significant interaction effect suggests that the positive association between firm complexity and restatement becomes weaker when the company is audited by an industry-specialized auditor. In our view, this result points to the importance of industry-specific knowledge in audit engagements involving companies with more complex organizational structures and operations. Such knowledge may help auditors identify and respond to reporting risks that arise from the complexity of the client's business.

These findings also have implications for both companies and audit firms. Companies with larger and more complex operations need to give greater attention to the reliability of financial reporting, particularly in areas involving consolidation and the coordination of information across business units. For audit firms, the findings suggest that developing industry-specific expertise may be particularly relevant when auditing clients with complex operations. Future studies could examine other measures of firm complexity and auditor industry specialization and consider additional factors, such as corporate governance and financial risk, that may help explain financial statement restatement. Research covering other industries and countries would also provide an opportunity to examine whether the relationships identified in this study remain consistent across different institutional and business settings.

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CONFLICT OF INTEREST

The authors declare that no conflict of interest exists in relation to this study.

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