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The relationship between audit fees and reporting delays with financial statements tone in companies listed on the Iraq stock exchange

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Abstract:

Purpose: This study examined the relationship between audit fees and audit reporting delays with the tone of financial statements in companies listed on the Iraq Stock Exchange.

Design/methodology/approach: Data from companies listed on the Iraq Stock Exchange were collected from 2016 to 2021. A random-effects multiple regression analysis using panel data was conducted to evaluate the hypotheses.

Findings: The results demonstrated that audit fees, auditor pecialization, and auditor change positively influence the upbeat tone of financial statements. In contrast, prolonged audit reporting delays lead to a more negative tone in financial statements. Furthermore, earnings management and the debt-to-equity ratio contributed to a less optimistic tone in financial statements.

Originality/value: This study lies in its exploration of the intersection between audit fees, reporting delays, and the tone of financial statements, specifically within the context of companies listed on the Iraq Stock Exchange. While prior research has examined the relationship between audit fees and financial reporting quality, few studies have investigated how these factors influence the tone of financial statements in emerging markets. The focus on Iraq, an economy with a unique regulatory and market environment, adds new insights into the dynamics between audit-related costs, financial reporting timeliness, and the narrative style of financial disclosures. This study also contributes to the broader literature by highlighting

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how both audit-related factors (such as auditor pecialization and change) and financial metrics (like earnings management and debt ratios) impact the tone of reporting, offering a nuanced understanding of corporate communication practices in an underexplored market.

1. Introduction

Financial reports connect company entities with external stakeholders, profoundly impacting economic decision-making. These reports offer a thorough overview of a company's financial condition and performance, which independent auditors examine and validate. By conducting an impartial and independent financial data assessment, auditors assure investors, creditors, and other stakeholders that the information disclosed is trustworthy and devoid of substantial misstatements. Financial reports are fundamentally a crucial decision-making instrument, as emphasized by Yuthas, Rogers and Dillard (2002), with numerous investment decisions significantly dependent on these reports (Garcia, 2013; Hay, 2013). Formulating financial reports and statements gives managers leeway in shaping their content and structure, potentially affecting stakeholders' opinions of many business facets (Pourkarim et al., 2018). Prior studies (Kashanipoor et al., 2020; Mirzaei et al., 2020) indicate that the tone employed in financial reports influences stock markets. Consequently, the tone of financial reporting is essential due to its influence on stakeholders' decision-making. This facet has been thoroughly examined within the context of signaling theory across multiple domains. A multitude of studies has been undertaken regarding the tone of financial statements. Yang et al. (2018) explored the effects of CEO qualities on the tone of financial reports. The tone of financial statements is a crucial aspect of financial reporting, influencing consumers' perceptions and interpretations of the presented information. The tone of financial statements, influenced by word choice, sentence structure, particular phrases, and the presentation of quantitative and qualitative data, profoundly affects stakeholders' perceptions of a company's success. Using upbeat and optimistic language can foster a good perception of the company's success, whereas cautious and negative language may suggest uncertainty and increased risk. As a motivational element, audit fees also affect auditors' conduct (Fernando, Abdel-Meguid and Elder, 2018). Elevated audit fees may lead auditors to be more predisposed to convey favorable and optimistic assessments of the financial statements. This inclination occurs when corporations frequently favor auditors who uphold a positive evaluation of their financial performance. Conversely, reduced audit fees may compel auditors to assume a more prudent and conservative position in their assessments. This prudent strategy may arise from the auditors' intention to alleviate risks linked to the audit process in such circumstances. Furthermore, the correlation between audit fees and the tone of financial statements is affected by supplementary factors. The intricacy of the company's activities, scale, and the industry in which it functions can all influence this relationship. Auditors'

personality qualities, including risk tolerance and independence, may influence their approach to financial reporting. In specific circumstances, auditors may encounter pressure from firm management to issue favorable judgments regarding financial statements despite such opinions being inconsistent with the available data. This pressure may compromise the integrity of financial reporting and diminish investor confidence. The interaction of these elements underscores the precarious equilibrium auditors must uphold to guarantee transparency and dependability in financial reporting while managing diverse external and internal forces.

Despite the significant role of the tone of financial statements in influencing stakeholders' perceptions, no prior research has examined the factors affecting this tone in Iraq. The present study addresses this gap by investigating the determinants of the tone of financial statements, a critical informational tool managers utilize. Managers are often motivated to adopt varied tones in their reporting to shape the perspectives of shareholders and stakeholders. Stakeholders rely on auditors to enhance the credibility of financial statements. Consequently, companies with higher audit fees are expected to engage auditors committed to delivering higher-quality reports (Liu, Cullinan and Zhang, 2021). A positive tone in annual reports increases audit risk, necessitating more significant audit efforts (Tucker, 2010). In essence, higher audit fees can lead to a more optimistic tone in financial statements, which may inherently carry greater audit risk. Given these considerations, this study aims to evaluate the relationship between audit fees and audit reporting delays with the tone of financial statements. This research contributes to the theoretical understanding of financial reporting in Iraq and provides practical insights into how audit fees and reporting timelines shape the communication of financial performance.

2. Theoretical foundations and hypothesis development

A company's financial performance can directly influence the tone of its financial statements, as managers and financial report preparers may convey varying messages to stakeholders through the way information is articulated and presented in these reports. This tone can vary depending on the company's financial status, ranging from positive to negative or even conservative and realistic. When a company performs well financially and experiences high profitability, the tone of financial statements is typically optimistic. In such cases, managers highlight financial successes prominently and in greater detail. Reports often use positive terminology such as "growth," "improvement," "revenue increase," and "enhanced efficiency." Conversely, in poor performance or financial losses, the tone of financial statements may become more conservative or defensive. In such situations, managers may use softer language or employ technical and complex expressions to downplay the negative implications of the company’s performance. Terms like "challenges," "temporary issues," or "short-

term revenue decline" are used to mitigate negative perceptions. When the company faces financial fluctuations, the tone of the reports might be cautious and balanced. Managers in these scenarios aim to use less definitive language to avoid overly positive or negative interpretations. Expressions such as "cautious expectations," "market uncertainty," or "efforts to improve conditions" are commonly employed. Mohseni and Rahnamay Roodpeshty (2019) indicated a significant negative relationship between tone management in financial reporting and the company's future financial performance. In contrast, Huang, Teoh and Zhang (2014) found no relationship between the tone management of financial statements and the company's performance. Similarly, Sarlak et al. (2020) concluded that managers issue more complex explanatory accounting reports when a company performs poorly. In other words, managers deliberately increase the complexity of explanatory accounting reports to obscure the company's poor performance and negative information.

2.1 The relationship between audit fees and the tone of financial statements

Given that the financial statements presented by companies are among the most critical sources of decision-making for financial information users, and auditors play a pivotal role in providing credibility to these statements, auditors can be considered crucial (Saghafi et al., 2021). Audited financial statements assure users that the information they rely upon is reliable and trustworthy. Therefore, auditors consider this when selecting clients and assessing audit risk. Since an optimistic tone in annual company reports can directly influence stock prices and the company's current and future performance (Davis, Piger & Sedor, 2012), it can be posited that the characteristics of managers' explanatory reports are likely associated with audit risk factors. Auditors consider these factors during their engagements. While potentially beneficial to a company's perceived market value, optimistic tones in reports may signal a need for increased scrutiny, as they could indicate intentional tone management aimed at shaping perceptions of the company's performance.

Auditors must consider the textual information presented in annual reports as part of their processes and make more significant efforts to identify risks associated with textual data. The informational environment is inherently the responsibility of management, and assessing management is a crucial part of the audit process (Cho, Roberts and Patten, 2010). A certified public accountant should examine the other disclosed information in the annual report to identify significant inconsistencies between this information and the audited financial statements (Tucker, 2010). In such scenarios, paying higher audit fees can motivate auditors to enhance the tone of financial statements. Huang, Teoh and Zhang (2014) found that companies with less readable financial reporting and longer audit report delays tend to pay higher fees. Bozorg-Asl, Marfo and Mahannejad (2021) demonstrated a significant negative relationship between audit fees and the tone of financial reporting.

H1: There is a positive and significant relationship between audit fees and the tone of financial statements.

2.2. The relationship between audit report delay and the tone of financial statements

An essential attribute of an auditor's report is its timeliness. The prompt availability of information is crucial, as delays in disseminating performance-related data might diminish its utility for decision-making. Suppose organizations do not immediately disclose performance-related details. In that case, it may impede investors, managers, and other stakeholders from making optimal decisions, leading to lost possibilities for enhancing performance and augmenting corporate profitability. Moreover, without prompt access to information, it is difficult to thoroughly and precisely assess a company's condition and performance (Chen, Rees and Sivaramakrishnan, 2019). The worth of audited financial statements diminishes commensurately with the duration of the audit report's delay, as users may pursue information from other sources. Auditors gather enough relevant data to provide high-quality reports, sometimes resulting in delays in audit reporting and subsequently affecting the tone of financial statements (Fernando, Abdel-Meguid and Elder, 2019). Auditors accumulate more credible information as the auditing process extends, enabling them to provide reports and financial statements with a more favorable tone. Yang et al. (2018) analyzed audit expenses, delays in audit reports, and anomalous tone in financial accounts in China. Their findings underscored a substantial correlation between report delays, an unusually favorable tone, and the auditing procedure.

H2: There is a negative and significant relationship between audit report delay and the tone of financial statements.

3. Research methodology

3.1. Data analysis methodology

The data is analyzed on a panel data basis, examining year-by-year observations across entities. The Stata software and the multivariate linear regression method were employed to test the hypotheses. Descriptive and inferential statistical methods were used for data analysis to derive insights and validate hypotheses.

The statistical population includes all companies listed on the Iraq Stock Exchange that meet the following criteria:

1. The required information for the research is readily accessible.
2. The company under examination has not changed its fiscal year during the study period.
3. Companies in the financial intermediation sector (e.g., banks, insurance companies, and financial intermediaries) are excluded from the analysis.

3.2. Research model

The following regression models are used to test the hypotheses:

Model 1:

$$Tone_{it} = \beta_0 + \beta_1 Lnafee_{it} + \beta_2 Spesialist_{it} + \beta_3 OEM_{it} + \beta_4 Overcon_{it} + \beta_5 AudChg_{it} + \beta_6 Size_{it} + \beta_7 BigN_{it} + \beta_8 ROA_{it} + \beta_9 Lev_{it} + \beta_{10} MTB_{it} + \beta_{11} Year_{it} + \beta_{12} industry_{it} + \varepsilon_{it}$$

Model 2:

$$Tone_{it} = \beta_0 + \beta_1 Delay_{it} + \beta_2 Spesialist_{it} + \beta_3 OEM_{it} + \beta_4 Overcon_{it} + \beta_5 AudChg_{it} + \beta_6 Size_{it} + \beta_7 BigN_{it} + \beta_8 ROA_{it} + \beta_9 Lev_{it} + \beta_{10} MTB_{it} + \beta_{11} Year_{it} + \beta_{12} industry_{it} + \varepsilon_{it}$$

3.2.1. Dependent variable

Tone of Financial Reporting (Tone):

This study measures the tone of financial reporting using the dictionary-based method. Specifically, the tone of the annual report's narrative section, which describes the activities and general status of the company, is determined based on the frequency of positive and negative words in the text.

For this purpose, the Harvard Sociological Dictionary and the DICTION software are categorized tools for tone assessment. Following the methodology of Mohseni and Rahnamay Roodpeshty (2019), a list of words associated with an optimistic tone and a pessimistic tone has been adopted to evaluate the tone of financial statements.

Table 1. List of words related to pessimistic tone

	Definition	Examples of Words
List of Words Related to Obstacles	Describes unfavorable and unstable situations and challenges (complex). It also includes scenarios associated with instability or uncertainty.	Problem (Crisis), Future Uncertainty, Difficult, Costly, Enemy, Instability (Unstable), Discomforting
List of Words Related to Hardship	Includes extreme conditions, severe human behavior, distress, and natural causes. Additionally, it involves undesirable results and challenging situations such as failure, inefficiency, and human incompetence.	Exploitation, Warning, Point of No Return (Irreversibility), Anxiety, Frightening, Distress, Problematic, Weak, Failure
List of Words Related to Denial and Rejection	Words associated with negative performance and those indicative of nonexistence or absence.	Cannot, Impossible, Should Not, Shall Not, Zero

Table 2. List of words related to optimistic Ttone

	Definition	Examples of Words
List of Words Related to Excellence (Strength)	Refers to the approval of individuals, groups, or institutions that include qualities like social quality, physical quality, high thinking quality, quality of entrepreneurship, and ethical quality. All the terms in this category indicate strength.	Better, Superior, Capable, Favorable, Good, Excellent, Positive, Profitable, Strong, Successful
List of Words Related to Satisfaction	Words related to positive emotional states (emotional, spiritual), such as moments of joy and delight. They also include words associated with success. All terms refer to a company's thriving environment.	Praise, Celebration, Comfort, Trust, Confidence, Happy, Delightful, Excited, Cheerful, Satisfied
List of Words Related to Positive Thinking	Refers to values that indicate respect for ethical concepts and terms related to social responsibility and adherence to ethical principles.	Commitment, Dedication, Loyalty, Improvement, Prosperity, Advancement, Quality

3.2.2. Independent variables

1. $Lnafee_{it}$ **(Logarithm of Audit Fees):** The natural logarithm of the audit fee for company i in year t.

2. $Delay_{it}$ **(Audit Report Delay):** The time gap between the fiscal year-end date and the date of the auditor's report for company i in year t.

3.2.3. Control variables

1. $Spesialist_{it}$ (Auditor Specialization): Auditor specialization in the industry I in year t is measured using the auditor's market share as an indicator of specialization in the industry. The calculation is based on the following formula:

Equation (1)

$$\frac{Total\ Assets\ of\ All\ Clients\ Audited\ by\ the\ Firm}{Total\ Assets\ of\ All\ Clients\ in\ the\ Specific\ Industry\ Audited\ by\ the\ Firm}$$

In this study, firms are considered industry specialists if their market share, defined as the above ratio, exceeds [*1.2*(1/Number of Firms in the Industry)*1.2]. After calculating the market share of an audit firm, if the obtained value exceeds the value derived from the above formula, the audit firm is deemed an industry specialist. Consequently, if the audit firm is an industry specialist, it is assigned a value of 1; otherwise, it is assigned a value of 0.

2. *OEM (Earnings Management):* Earnings management is measured using discretionary accruals, estimated based on the modified Jones model (1995). Initially, the coefficients are calculated using Equation (2):

$$\frac{TA_{i,t}}{Assets_{i,t-1}} = \alpha_1\left(\frac{1}{Assets_{i,t-1}}\right) + \alpha_2\left(\frac{\Delta Sales_{i,t}-\Delta AR_{i,t}}{Assets_{i,t-1}}\right) + \alpha_3\left(\frac{PPE_{i,t}}{Assets_{i,t-1}}\right) + \varepsilon_{i,t} \quad (1)$$

After estimating the coefficients, non-discretionary accruals are calculated using Equation 3:

$$\frac{NDA_{i,t}}{Assets_{i,t-1}} = \alpha_1\left(\frac{1}{Assets_{i,t-1}}\right) + \alpha_2\left(\frac{\Delta Sales_{i,t}-\Delta AR_{i,t}}{Assets_{i,t-1}}\right) + \alpha_3\left(\frac{PPE_{i,t}}{Assets_{i,t-1}}\right) \qquad (2)$$

Finally, we will have the option to calculate accruals:

$$\frac{DA_{i,t}}{Assets_{i,t-1}} = \frac{TA_{i,t}}{Assets_{i,t-1}} - \frac{NDA_{i,t}}{Assets_{i,t-1}} \qquad (3)$$

In the above equations, TA represents total accruals, Assets denotes total assets, Sales refers to revenue, AR stands for accounts receivable, PPE refers to gross property, plant, and equipment, NDA signifies non-discretionary accruals, and DA indicates discretionary accruals. In this research, the following formula is used to calculate total accruals, which is recognized as income:

Accruals = Operating Cash Flow − Earnings Before Extraordinary Items

Many previous studies have used discretionary accruals (DA) to measure earnings quality. This study employs DA as a proxy for earnings management. Specifically, the lower the discretionary accruals, the lower the level of earnings management.

3. *Overconfidence of Managers (Overcon):* Overconfidence is a dummy variable. If the debt-to-equity ratio of company i in fiscal year t exceeds the median debt-to-equity ratio of companies in the same industry within the sample for the corresponding period, it indicates managerial overconfidence and takes the value of one; otherwise, it is assigned a value of zero. The debt-to-equity ratio is the total long-term and short-term debt divided by the market value of equity (Soroushyar, 2016).

4. ***AudChg (Auditor Change):*** If the auditor has been changed during the year under review, the value is one; otherwise, it is zero.

5. ***SIZE (Firm Size):*** The natural logarithm of the company's annual sales and the market value of its assets. Additionally, as a supplementary test, the market value of the assets will also be utilized.

6. ***BigN (Type of Auditor):*** If the company is audited by large and top-tier auditing firms (as classified by the Iraqi Association of Certified Public Accountants, such as the Financial Audit Bureau), the value is one; otherwise, it is zero.

7. ***ROA (Return on Assets):*** The ratio of net operating income to total assets of the previous year.

8. ***Lev (Financial Leverage):*** The total debt ratio to the company's assets.

9. ***MTB (Market-to-Book Ratio):*** The market value ratio to the book equity value.

Year: Year dummy variable.

Industry: Industry dummy variable.

4. Analysis and data

4.1. Descriptive statistics

This study utilizes a multiple regression model to investigate the correlation between auditor fees, audit report delay, and the tone of financial statements in Iraq Stock Exchange-listed companies. Information gathered from 33 different businesses between 2016 and 2021 forms the basis of the study. Research variables' descriptive statistics, including observation count, mean, standard deviation, and minimum and maximum values, are shown in Tables 3 and 3. The financial reporting tone ranges from -1 to 1, with an average value of 0.400. The range of values for the logarithm of auditor fees is from 11.513 to 19.333, with a mean of 16.472 and a standard deviation of 1.819. There is a wide range of audit report delays, from 12 to 1,386 days, with an average of 182.566 days and a standard deviation of 171.931 days. The business size variable has the most significant mean of the research variables at 21.987, while earnings management has the lowest mean at 0.006. The earnings management metric has a standard deviation of 0.260, and the market-to-book ratio (MTB) has a standard deviation of 10.405; these metrics exhibit the most and lowest variability, respectively. The earnings management observation has the lowest value at -0.902, while the MTB observation has the highest value at 49.049.

Table 3. Descriptive Statistics of quantitative research variables

Abbreviation	Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Tone	Financial Reporting Tone	198	0.400	0.661	-1.000	1.000
Logfee	Logarithm of Auditor Fee	198	16.472	1.819	11.513	19.333
Delay	Audit Report Delay	198	182.566	171.931	12.000	1386
Oem	Earnings Management	198	0.006	0.260	-0.902	0.879
Size	Firm Size	198	21.987	3.278	16.796	28.039
Roa	Return on Assets	198	0.106	0.395	-0.333	2.842
Lev	Financial Leverage	198	0.279	0.386	0.001	2.507
Mtb	Market-to-Book Ratio	198	4.548	10.405	-0.831	49.049

Table 4 presents the descriptive statistics for the qualitative variables of the research. These variables are binary (0 or 1). The highest number of zeros corresponds to the Auditor Specialization variable, while the highest number pertains to the Type of Auditor variable. Additional details about these variables are provided in Table 4.

Table 4. Descriptive statistics of qualitative research variables

Abbreviation	Variable Name	Observations	Mean	Standard Deviation	Number of Zeros	Number of Ones
Overcone	Managerial Overconfidence	198	0.399	0.491	119	79
Spesialist	Auditor Specialization	198	0.066	0.248	185	13
Audchg	Auditor Change	198	0.475	0.501	104	94
Big1	Type of Auditor	198	0.500	0.501	99	99

4.2. Multicollinearity test

Based on the obtained statistics, the **Variance Inflation Factor (VIF)** for all variables in both models was calculated to be less than 5. Therefore, no multicollinearity exists between any of the variables in the research models. Consequently, there is no issue of multicollinearity in the considered regression models.

Table 5. Multicollinearity results for research models

Variables	Model 1 (VIF)	Model 1 (1/VIF)	Model 2 (VIF)	Model 2 (1/VIF)
Big1	1.45	0.688	1.6	0.626
Lnafee	1.32	0.755	-	-
Dealy	-	-	1.42	0.703
Overcon	1.22	0.822	1.21	0.825
Lev	1.21	0.824	1.21	0.825
Spesialist	1.16	0.859	1.16	0.860
Size	1.16	0.862	1.23	0.816
Roa	1.13	0.883	1.14	0.880
Audchg	1.09	0.921	1.1	0.911
Mtb	1.08	0.923	1.05	0.948
Oem	1.05	0.957	1.05	0.955
Mean	**1.19**	-	**1.22**	-

4.3. Results of the pooling test

Based on the results of the pooling test presented in the table below, the calculated F-statistics for the two models are more significant than the critical values at the 95% and 90% confidence levels, respectively. The null hypothesis is rejected with F-statistics of 1.58 and 1.48. Therefore, the panel data method must be used to estimate these models.

Table 6. Pooling test results for research models

	F-Statistic	P-Value
Model 1	1.580	0.035
Model 2	1.480	0.061

4.4. Results of the Fixed or Random Effects Test

The null hypothesis is not rejected based on the chi-square statistics ($\chi 2$) for the research models, calculated as 8.78 and 6.07, respectively. Therefore, the random effects model is more suitable for estimating these two models. Subsequently, a

correlation matrix will be used to examine the relationships between the variables.

Table 7. Hausman test results for research models

	χ^2-Statistic	P-Value
Model 1	8.78	0.553
Model 2	6.07	0.809

4.5. Results of the correlation matrix

Table 8. Correlation matrix results for research variables

Variables	Tone	Lnafee	Dealy	Spesialist	Oem	Overcon	Audchg	Size	Big1	Roa	Lev	Mtb
Tone	1											
Lnafee	0.045	1										
Dealy	0.074	0.217***	1									
Spesialist	-0.172**	0.031	0.051	1								
Oem	0.031	0.054	-0.106	0.036	1							
Overcon	-0.007	0.205***	0.117	-0.072	0.048	1						
Audchg	0.031	-0.133*	0.034	-0.091	-0.120*	-0.184***	1					
Size	0.103	0.224***	0.245***	-0.017	-0.031	0.134***	-0.117	1				
Big1	0.035	0.368***	0.433***	0.176**	-0.036	0.243***	-0.089	-0.112***	1			
Roa	0.094	0.177**	0.042	-0.133*	0.095	0.227***	-0.060	0.082	0.200***	1		
Lev	-0.111	0.077	0.113	0.234***	0.027	0.214***	-0.125*	-0.110	0.307***	0.020	1	
Mtb	-0.017	-0.148**	0.017	-0.162**	-0.099	-0.064	0.107	-0.015	0.010	0.002	-0.10	1

Note: ***, **, and * indicate significance levels of 99%, 95%, and 90%, respectively.

This test examines the pairwise relationships between the variables used in the models, and its output is the above matrix. The diagonal of this matrix always equals one, as it represents the correlation of each variable with itself, indicating perfect correlation. The closer these values are to one, the stronger and more direct the correlation. Conversely, values closer to zero indicate no correlation. Negative values represent an inverse correlation.

4.6. Model Estimation and Interpretation of Results

According to the discussions developed in the theoretical section, empirical models are estimated based on this section's panel data random effects method. These models are:

Model (1):

$$Tone_{it} = \beta_0 + \beta_1 Lnafee_{it} + \beta_2 Spesialist_{it} + \beta_3 OEM_{it} + \beta_4 Overcon_{it} + \beta_5 AudChg_{it} + \beta_6 Size_{it} + \beta_7 BigN_{it} + \beta_8 ROA_{it} + \beta_9 Lev_{it} + \beta_{10} MTB_{it} + \beta_{11} Year_{it} + \beta_{12} industry_{it} + \varepsilon_{it}$$

Model (2)

$$Tone_{it} = \beta_0 + \beta_1 Delay_{it} + \beta_2 Spesialist_{it} + \beta_3 OEM_{it} + \beta_4 Overcon_{it} + \beta_5 AudChg_{it} + \beta_6 Size_{it} + \beta_7 BigN_{it} + \beta_8 ROA_{it} + \beta_9 Lev_{it} + \beta_{10} MTB_{it} + \beta_{11} Year_{it} + \beta_{12} industry_{it} + \varepsilon_{it}$$

Based on the results of the pooling test, the first regression model is estimated using the panel data method. Additionally, the Hausman test indicated that the random effects method should be employed to achieve the best regression estimation. Furthermore, according to the results in Table 9, the residuals of the first model do not exhibit serial correlation in the error terms. However, the

residuals of this model show heteroskedasticity at the 95% confidence level. Based on the Ramsey RESET specification test results, the first model has no omitted variables, so the results are unbiased.

Table 9. Diagnostic test results for the First Model

Test Name	Chi^2 or F	P-Value
Breusch-Pagan Test	6.450	0.011
Wooldridge Test	2.267	0.142
Ramsey RESET Test	0.630	0.599

Note: The null hypotheses for the three tests are, respectively, homoscedasticity, no serial correlation, and no omitted variables.

Therefore, the robust random effects regression method was utilized to fit this model, given the presence of heteroskedasticity. This approach addresses issues arising from the violation of classical regression assumptions. According to the estimation results for the first model in Table 9, the logarithm of auditor fees has a coefficient of 0.092 at the 99% confidence level. Thus, the study's first hypothesis, which states a significant relationship between auditor fees and the tone of financial statements, is accepted at the 99% confidence level. Auditor specialization also contributes to an increase in the positive tone of financial statements at the 99% confidence level, with a coefficient estimated at 0.055. Conversely, the variables of opportunistic earnings management and managerial overconfidence reduce the positive tone of financial statements. The coefficient for the OEM variable was estimated at -0.231 at the 95% confidence level, and the coefficient for the Overcon variable was estimated at -0.015 at the 99% confidence level. Additionally, auditor change increases the Tone variable at the 95% confidence level, with a coefficient of 0.015.

Among the control variables, only financial leverage reduces the positive tone of financial statements at the 90% confidence level. Other control variables and the year and industry dummy variables do not affect the tone variable. Therefore, the tone of financial statements does not vary significantly across different years or industries.

Table 10. Estimation results for the First Model

Variable Name	Coefficient	P-Value
lnafee	0.092	0.000
spesialist	0.055	0.000
oem	-0.231	0.025
overcon	-0.015	0.008
audchg	0.015	0.018
size	0.017	0.228
big1	0.136	0.279
roa	0.055	0.499
lev	-0.139	0.055

mtb	-0.004	0.433
Constant	-0.023	0.971
Obs	198	
R^2	34.51	
Wald Test	24.58	0.006
Norm of Resid	0.907	

After estimating the model, the normality of the error term was examined using the Kolmogorov-Smirnov test. According to the results, the calculated p-value for this test was 0.907. Therefore, the model's residuals follow a normal distribution, enabling the use of conventional tests such as Z, t, F, and others.
Based on the results of the pooling test, the second regression model is estimated using the panel data method. Additionally, the Hausman test indicated that the random effects method should be used to achieve the best regression estimates. Furthermore, as shown in Table 11, the residuals of the second model do not exhibit serial correlation in the error terms. However, the residuals of this model, with a computed statistic of 7.03, show heteroscedasticity at a 99% confidence level. According to the Ramsey RESET test results for model specification, the second model does not have omitted variables, indicating that the results are unbiased.

Table 11. Results of diagnostic tests for the Second Model

Test Name	Chi^2 or F	P-Value
Breusch-Pagan Test	7.030	0.008
Wooldridge Test	2.130	0.154
Ramsey RESET Test	0.240	0.866

Note: The null hypotheses for the three tests are, respectively, homoscedasticity, no serial correlation, and no omitted variables.

Therefore, the robust random effects regression was employed to estimate the second model, considering the presence of heteroscedasticity. Based on the estimation results of the second model presented in Table 12, audit report delay has a coefficient of -0.006 at a 99% confidence level. Hence, the second research hypothesis, which states that there is a significant relationship between audit report delay and the tone of financial statements, is accepted at the 99% confidence level. Auditor expertise, at a 99% confidence level, also contributes to an increase in the positive tone of financial statements, with an estimated coefficient of 0.055. Conversely, the variables of earnings management and managerial overconfidence lead to a decrease in the positive tone of financial statements. The coefficient of the OEM variable is estimated at -0.232 at a 95% confidence level, while the coefficient of the Overcon variable is calculated at -0.011 at a 99% confidence level. Additionally, auditor change increases the Tone variable, with a coefficient of 0.045, at a 99% confidence level.

Among the control variables, only financial leverage reduces the positive tone of financial statements at a 90% confidence level. Other control variables and year and industry dummy variables have no significant effect on the tone variable. By comparing the two models, as the R^2 of the second model was calculated to be 36.38 and that of the first model was 34.51, it can be concluded that the explanatory power of the second model, considering audit report delay, is superior.

Table 12. Estimation results for the Second Model

Variable Name	Coefficient	P-Value
Delay	-0.006	0.000
Specialist	0.055	0.000
OEM	-0.232	0.024
Overcon	-0.011	0.000
AudChg	0.045	0.002
Size	0.017	0.263
Big1	0.142	0.289
ROA	0.060	0.455
Lev	-0.141	0.048
MTB	-0.004	0.411
Constant	0.116	0.767
Obs	198	
R^2	36.38	
Wald Test	30.45	0.001
Normality of Residuals	0.718	

4.7. Model estimation

After estimating the model, the normality of the error term was examined using the Kolmogorov-Smirnov test. According to the results, the calculated p-value for this test was 0.718. Therefore, the model's residuals follow a normal distribution, enabling the use of conventional statistical tests such as Z, t, and F.

5. Conclusion

Annual financial reports of corporations serve as a crucial source of information for decision-making by capital market participants, including shareholders, creditors, financial analysts, market regulators, and other stakeholders (Luo, Li and Chen, 2018). The tone of financial reporting is a crucial aspect of textual information and has been thoroughly examined in multiple situations (Huang, Teoh and Zhang, 2014). The informational value of financial statement content, as indicated by the tone of the reports, is understandable to users. Consequently, corporations ought to refrain from producing intricate, protracted reports with a negative tone to facilitate public entities in enhancing the acceptance of given information and to aid investors in comprehending the financial statements more effectively. This study examines the correlation between auditor fees, the delay in

audit reports, and the tone of financial statements, offering users of financial information insights to improve their decision-making abilities. This research aimed to analyze the influence of auditor fees and audit report delays on the tone of financial statements. The findings of the initial hypothesis test demonstrated a positive and significant correlation between auditor fees and the tone of financial statements. In summary, increased auditor fees resulted in an enhancement of the quality of financial statements. Elevated audit fees may lead to a more cautious tone in the auditor's report. The correlation between audit fees and the tone of the auditor's report was intricate and might be affected by multiple factors, including auditor proficiency, audit complexity, and the degree of inherent risk. The results aligned with the findings of Sikka et al. (2018), who also concluded that the level of audit work and audit fees are directly associated with companies with higher risk levels. Higher audit fees could enhance financial reporting quality through increased auditor efforts, leading to a more positive tone in the reports. The results of the second hypothesis test indicate a negative and significant relationship between audit report delay and the tone of financial statements. In other words, delays in audit reports lead to a negative tone in financial statements. Audit report delay referred to the time interval between the end of the fiscal year and the issuance date of the auditor's report. This delay is considered one of the most critical attributes of timely financial reporting. Companies ' timely provision of financial statements is highly significant as it plays a key role in the capital market and investors' decisions. If the delay occurs due to the untimely delivery of information to shareholders, it can jeopardize the quality and affect the value of the provided information. Reducing audit report delays can enhance the quality of information and ultimately promote an optimistic tone in financial statements. An optimistic tone in financial statements carries positive implications, indicating lower business risk for the client company. The findings were consistent with the studies by Blay et al. (2011) and Bushee, Gow and Taylor (2018). In this context, it is recommended that auditors strive to reduce delays in the audit process within their firms to increase client attention and satisfaction, ensuring competitiveness in the audit market. This study's findings also suggest that managers and shareholders of business units review the audit process to obtain higher-quality audit reports and improve the tone of financial statements, thereby attracting more investment to the company.

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رابطه بین حق‌الزحمه و تاخیر گزارش حسابرسی با لحن صورت‌های مالی در شرکت‌های پذیرفته شده بورس اوراق بهادار عراق

چکیده:

هدف: این مطالعه به بررسی رابطه بین حق‌الزحمه و تاخیرهای گزارشگری حسابرسی با لحن صورت‌های مالی در شرکت‌های پذیرفته شده در بورس اوراق بهادار عراق می پردازد.

روش تحقیق: داده‌های شرکت‌های پذیرفته شده در بورس اوراق بهادار عراق از سال ۲۰۱۶ تا ۲۰۲۱ جمع‌آوری و برای آزمون فرضیه‌ها، از داده‌های تابلویی استفاده گردید.

یافته‌ها: نتایج نشان داد که حق‌الزحمه حسابرسی، تخصص حسابرس و تغییر حسابرس تأثیر مثبتی بر لحن خوش‌بینانه صورت‌های مالی دارد. در مقابل، تاخیرهای طولانی گزارش دهی حسابرسی منجر به لحن منفی تر در صورت‌های مالی و مدیریت سود و نسبت بدهی به حقوق صاحبان سهام باعث ایجاد لحن کمتر خوش بینانه در صورت های مالی می شود.

ارزش افزوده: این مطالعه به بررسی تلاقی بین حق‌الزحمه، تاخیرهای گزارش حسابرس، ولحن صورت-های مالی، به ویژه در شرکت‌های پذیرفته شده در بورس اوراق بهادار عراق می‌پردازد. در حالی که تحقیقات قبلی به بررسی رابطه بین حق الزحمه حسابرسی و کیفیت گزارشگری مالی پرداخته، مطالعات کمی چگونگی تاثیر این عوامل بر لحن صورت‌های مالی در بازارهای نوظهور را بررسی کرده‌اند. تمرکز بر عراق، اقتصادی با محیط نظارتی و بازار منحصربه‌فرد، بینش‌های جدیدی را در مورد روابط پویای بین هزینه‌های مربوط به حسابرسی، به موقع بودن گزارش حسابرس و سبک افشای مالی ارائه می‌نماید. همچنین، این مطالعه با نشان دادن چگونگی تاثیر عوامل مرتبط با حسابرس (مانند تخصص و تغییر حسابرس) و معیارهای مالی (مانند مدیریت سود و نسبت بدهی) بر لحن گزارشگری، یک درک (شناخت) دقیق‌تری از رویه‌های ارتباطی شرکتی در یک بازار ناشناخته ارائه می دهد.

کلمات کلیدی: حق‌الزحمه حسابرسی، تأخیر در گزارش حسابرسی، لحن صورت‌های مالی.