Journal of Current Practice in Accounting and Finance (JCPAF)
Volume.15, Number 9; September-2024;
ISSN: 2836-9584 | Impact Factor: 9.83
https://zapjournals.com/Journals/index.php/Accounting-Finance
Published By: Zendo Academic Publishing

EXPLORING THE NEXUS BETWEEN AUDIT FEES AND AUDIT QUALITY: EMPIRICAL ANALYSIS OF LOCAL ACCOUNTING FIRMS IN GHANA

[1]Solberg Horve Mishiwo
Email: ***solberg.mishiwo@stu.ucc.edu.gh*** */ 024 888 7053, 020 803 6958*

Article Info
Keywords: Audit fees, Audit quality, Probit regression, Nonparametric correlation

DOI
10.5281/zenodo.13628014

Abstract
Although a number of variables, including audit committee size, gender diversity, and leverage, have been found to have some correlation with audit quality in a variety of industries, including the banking and manufacturing sectors in general, not much research of this kind has been done in relation to local accounting firms in Ghana. As a result, this study attempts to close the gap by examining, among other things, how audit fees charged by local accounting firms in Ghana affect audit quality while controlling for audit committee size, firm leverage, and audit committee gender diversity. The cross-sectional data included in this study's analysis came from the 2023 World Bank Group Country Survey. The nonparametric correlation with Kendall Tau-b revealed that audit fees demonstrated a significant and weak negative correlation with audit committee gender diversity, suggesting that the higher the audit fees, the lower the audit committee gender diversity. The fitted probit regression indicates that audit fees have a significant positive impact on audit quality, suggesting that higher audit fees produce better audit quality. Therefore, as the sole regulator of accounting practices in Ghana, the Institute of Chartered Accountants, Ghana (ICAG) should establish fair and reasonable audit fees guidelines to improve audit quality. These fees guidelines should also impose severe penalties, such as a license loss for the accounting firms, if they fail to comply with the regulated price. Furthermore, ICAG should consider other factors other than revenue of local accounting firms in the determination of appropriate audit fees.

[1] University of Cape Coast

Introduction

Investors, shareholders, accounting standard-setting bodies, and regulatory authorities have consistently expressed concern regarding the quality of financial statements. There is an increasing demand for accurate and reliable financial reporting. This demand has been driven by various factors, such as recent financial scandals, the introduction of intricate services, the rise in disclosure requirements and the implementation of complex legislation. The demand for reliable and excellent financial reporting is heightened by several variables. This is necessary to restore user trust, which has been undermined by numerous financial scandals, and address the various complications that have arisen (Zalata et al., 2020).

Regulators worldwide are placing greater emphasis on the role of audit committees in corporate governance, particularly considering high-profile corporate scandals involving corporations like Enron, Tico, and WorldCom. In Ghana, the effectiveness of audit committees has been called into question due to recent instances of corporate mismanagement and the bankruptcy of certain corporations. Since 2013, Ghana has had some documented corporate scandals, particularly in the financial sector. An illustrative instance is the 2015 downfall of the microfinance institution DKM, which resulted in depositors suffering substantial financial losses amounting to millions of dollars. In 2018, five commercial banks collapsed, while other institutions were merged due to the discovery of another corporate scandal in the country.

The problem of agency that arises from the division of company ownership and control leads to the necessity for external audit services. Managers have authority over the everyday activities of the businesses, whether or not they have major shareholdings. However, firm ownership rests with shareholders, who are the investors. Therefore, shareholders have a remaining entitlement to the firm's resources, and it is the responsibility of managers to provide an account of these resources to shareholders, typically through regular financial statements. (Securities and Exchange Commission, 2000).

Furthermore, the worldwide economic downturn has placed numerous businesses in a precarious position, necessitating their cost-cutting measures. The audit fees have been consistently impacted, likely to distribute the burden associated with the expense. Nevertheless, the ratio of audit fees to overall costs is typically small, and cost savings have a small effect on a company's net profit. Given the present economic circumstances, external auditors are confronted with more challenging decisions, such as evaluating a business' viability, determining the decrease in asset value, and reviewing the accuracy of fair values. Consequently, this inevitably results in a longer audit duration, which is anticipated to raise audit fees rather than decrease them.

The auditors can maintain audit quality even with a slight decrease in costs. However, it is crucial for firms' audit committees to alert the board of any potential hazards that may arise from reducing audit fees. The adage "pay peanuts and you get monkeys" can be applicable. Numerous studies have examined the factors that affect audit quality both within and outside Africa. One such element is audit fees, which have been proven to influence audit quality. However, there is no consensus on the specific impact and magnitude of this influence. Fitriany et al. (2016) examined the influence of abnormal audit fees on audit quality in Indonesia. This study revealed a negative correlation between abnormal audit fees and audit quality. They claim that the compulsory rotation of audit firms and the presence of intense competition in the Indonesian audit market could lead to a reduction in audit fees, which could enhance audit quality.

A significant amount of empirical research on audit quality is available from many sources, both within and outside Ghana. Several studies have investigated the relationship between various factors and audit quality in different contexts. For example, Listya and Sukrisno (2014) examined the influence of auditor independence, audit tenure, and audit fee on the audit quality of members of the capital market accountant forum in Indonesia. Díaz et al. (2015) studied the link between auditor tenure and audit quality in state-owned Spanish foundations.

Soyemi et al. (2013) investigated the determinants of external audit fees in the banking sector in Nigeria. Babatolu et al. (2016) focused on the Nigeria Bank and explored the relationship between auditors' independence and audit quality. Although various factors, such as the size of the audit committee, gender diversity within the committee, and leverage, have been found to have some correlation with audit quality in different sectors, such as banking and manufacturing, limited research has been conducted on this topic, specifically within local accounting firms in Ghana. This study addresses this gap by examining the impact of audit fees on audit quality in local accounting firms in Ghana. This study also takes into account factors such as the size of the audit committee, gender diversity, and leverage.

Literature review and hypothesis development

Concept of audit quality

The Consultative Committee of Accountancy Bodies (CCAB) defines audit as a thorough and impartial review of a company's financial statements by an appointed auditor. The purpose of an audit is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared in all material respects in accordance with an applicable financial reporting framework. Audits are anticipated to enhance the accuracy and reliability of financial statements. Consequently, audit quality is determined by the auditor's demonstration of professionalism, thoroughness, and attentiveness during the audit process, which should ultimately result in a truthful and unbiased representation of the financial statements (Arrunada, 2000).

Although there is no commonly agreed-upon definition for audit quality, various experts have provided explanations of the term in their studies. Arens et. al. (2011) defined audit quality as the extent to which it effectively identified and reported significant errors in financial statements. The ability to detect errors is a measure of auditor competence, while the act of reporting reflects auditor ethics and independence. According to Davidson and Neu (1993), audit quality refers to auditors' capacity to identify and expose minor misstatements and manipulations in reported net income. These findings from Salehi and Azary (2008) support the idea that an auditor's ability to protect the interests of financial statement users by identifying and reporting significant errors and reducing information imbalances between users and management determines audit quality. They also stated that audit quality is confirmed when a financial statement is devoid of information asymmetry. Palmrose (1986) argued that the definition of audit quality has been a subject of debate, with actual and perceived quality being considered crucial factors. Actual quality refers to the probability of reducing the risk of reporting major misstatements in financial statements. Perceived quality, on the other hand, relates to consumers' beliefs about auditors' capacity to reduce material misstatement.

Audit fees

Audit firms are eligible to receive fees from their clients as payment for their workdone. The auditor's level of work typically determines the number of fees paid, considering the client's size and risk factors. As a result, these fees can be discretionary, and if they do not align with the auditor's efforts, they may compromise independence and thus affect the quality of the report. Abu Bakar and Ahmad (2009) stated that the Code of Ethics for Professional Accountants by the IFAC indicates that high fees may lead to concerns about auditors' independence. There are divergent theories about the impact of audit fees on the integrity and accuracy of financial reporting. Agency theory, proposed by Jensen and Meckling in 1976, posits that audits serve as a means of monitoring management in order to minimize agency costs. In simpler terms, higher-quality audits are associated with higher audit fees. According to economic theory (DeFond et al., 2002), increased fees incentivize auditors from accounting companies to offer better-quality financial statements to retain profitable clients. Therefore, we anticipate that increasing fees will enhance audit quality. Consequently, we formulate the following hypothesis:

H1: Audit fees have a significant positive effect on audit quality.

Control variables

This study makes a distinct contribution by examining the impact of audit fees on audit quality in local accounting firms in Ghana by considering the size of the audit committee, gender diversity, and leverage. Audit committee size refers to a specific group of individuals selected from a company's board of directors. Their primary responsibility is to ensure that auditors maintain independence from the influence of management. In addition, it concerns a group of individuals typically selected from external sources and tasked with providing an unbiased assessment of the company's procedures (Abu et al., 2018). This indicates that the audit committee's perspective is characterized by transparency, accuracy, reliability, neutrality, impartiality, and the absence of favoritism, fear, or bias. The Securities and Exchange Commission mandates that audit committees consist of an appropriate number of members to ensure efficient performance of their responsibilities. It is noteworthy that the firm's leverage was also considered when calculating the ratio of total debt to equity (Onaolapo, 2017).

The study's audit committee gender diversity refers to the equitable and balanced inclusion of individuals of various genders on the committee, including both men and women. Gender diversity on the audit committee entails an equitable distribution of both male and female committee members. An audit committee comprising many female directors would presumably operate distinctly from an audit committee consisting solely of male members. Nevertheless, a dearth of research has examined the influence of gender disparities on audit committee attributes. Dennis and Kunkel (2004) contended that female members of audit committees possess a greater array of skills, exhibit higher levels of engagement, demonstrate more influence, maintain emotional stability, exercise caution, display independence, and exhibit less aggression than their male counterparts in managerial positions. Given this rationale, a female member of the audit committee may exhibit increased sensitivity toward the possibility of fraudulent financial reporting by the firm, thereby enhancing the quality of the audit. Although there is less research on the relationship between gender diversity on audit committees and audit fees, the available studies indicate inconclusive findings. Abu (2021) conducted research in Nigeria and found no significant correlation between the diversity of audit committees and the audit fees of consumer goods companies listed in Nigeria. In their study, Miglani and Ahmed (2019) discovered a strong and meaningful correlation between the diversity of audit committee members and the fees charged for audits. However, alternative research suggests that audit committees with female members are diligent and tend to pay lower audit fees (Ittonen et al., 2010). Therefore, there is a notable inverse correlation between the diversity of the audit committee and the number of audit fees. Ittonen et al. (2010) and Nekhili et al. (2020) discovered a strong and negative correlation between the diversity of audit committee members and fees charged for audits. Furthermore, Miglani and Ahmed (2019) used logit binary regression to demonstrate the significant adverse effect of gender diversity on audit committee fees. Therefore, this study asserts that the presence of women on the audit committee limits the extent of audit tasks, thereby leading to a decrease in the corresponding audit costs. Here, we describe the second hypothesis as follows:

H2: There is a significant negative correlation between audit committee gender diversity and audit fees.

Methodology

This study used a quantitative research design and collected cross-sectional data from 50 local accounting firms in Ghana in 2023. The data were obtained through a World Bank survey (Ghana - World Bank Group Country Survey, 2023) and focused on the audit fees and audit quality of these firms. A purposive sampling technique was employed for the analysis of the study data.

The analytical techniques employed in this work encompass summary statistics (mean and standard deviation), probit regression models, and correlation analysis. The probit regression model is appropriate for this investigation because the dependent variable is dichotomous, with two categories represented by values 1 and 0.

Furthermore, this test is non-parametric, indicating that there is no need for stringent parametric assumptions in this scenario. The probit regression model is utilized to examine the influence of audit fees on audit quality while considering audit committee size (ACS), audit committee gender diversity (ACGD), and leverage. The probit regression model can be specified as follows:

$$In\left(\frac{p}{1-p}\right) = \hat{y}_i = \beta_0 + \beta_1 Auditfees_i + \beta_2 ACS_i + \beta_3 ACGD_i + \beta_4 Leverage_i + \varepsilon_i \ldots\ldots (1)$$

The audit quality ($\hat{y}_i$) is the dependent variable, the independent variable is audit fees, and the control variables include audit committee size, gender diversity, and leverage. The β_0 is the constant term or intercept, while the β_1 to β_4 are the slopes or coefficients of the independent variables. The ε_i is the stochastic error term, and the unit represents selected local accounting firms in Ghana.

This study employs the Kendall Tau-b method as a nonparametric approach to examine the correlation between variables like audit quality, audit fees, audit committee size, gender diversity, and leverage. This method allows for an examination of both the direction and strength of the relationship between these variables. The critical values of 1 and +1 bound the correlation coefficient T_b.

Additionally, the postestimation tests necessary for assessing the validity and accuracy of the fitted probit regression model include the goodness-of-fit test, the sensitivity and specificity test, and the accuracy test using the area under the curve.

Variable measurement

Audit quality is measured with a value of 1 for a local accounting firm in Ghana that has been auditing for four years or more, while a value of zero indicates a local accounting firm with audit practices less than four years. Audit fees are measured as the natural log of audit fees paid by the clients of the selected local accounting firm in Ghana; audit committee size is the size of the committee in the audit practices (count data); audit committee gender diversity is measured in percentage; and leverage is the total debt/equity ratio expressed in percentage.

Results and Discussion

Table 1: Summary statistics

	Mean		Std. Deviation
Audit fees	4.20		3.370
ACS	0.47		0.331
ACGD	8.83		2.191
Leverage	31.84		8.997
		Frequency	Percentage
Audit quality	0	34	68.00
	1	16	32.00
	Total	50	100.0

Source: Authors' computation using STATA software.

Table 1 shows that the average audit fees are 4.2 with a variability of approximately 3.4, the average audit committee size (ACS) is 0.47 with a variability of approximately 0.3, the average audit committee gender diversity (ACGD) is approximately 9% with a variability of approximately 2%, the average leverage is approximately 32% with a variability of approximately 9%, and the local accounting firms in Ghana that have been engaged with auditing practices for more than four years and above in this study are represented by 16

representing 32%, while those engaging with auditing practices less than four years are represented by 34 representing 68%.

Table 2: Probit regression model

Audit Quality	Coefficient	S.E.	Z	P-value
Audit fees	4.462	1.745	2.56	0.011
ACS	-0.389	0.141	-2.77	0.006
ACGD	-0.005	0.029	-0.18	0.859
Leverage	-0.679	0.704	-0.96	0.335
Constant	- 1.639	1.336	1.23	0.220
Goodness of fit test				0.2518
Overall P-value	0.0003			

Source: Authors' computation using STATA software.

Table 2 demonstrates that the overall probit model's p-value of 0.0003 falls below the 0.01 significance level, indicating the model's statistical significance at the 1% level. This suggests a significant correlation between audit quality and audit fees, even after accounting for factors such as audit committee size, gender diversity, and firm leverage. **Table 2** also reveals that the coefficient estimate of audit fees has a significant positive impact on audit quality at the 5% level, implying that higher audit fees lead to better audit quality. Conversely, the coefficient estimate of audit committee size has a negative significant influence on audit quality, implying that a larger audit committee in a local accounting firm will have lower audit quality. This supports the first research hypothesis (H1) that audit fees have a significant positive effect on audit quality. The result also upheld the economic theory proposed by DeFond et al. (2002), which posits that there exists a positive correlation between higher audit fees and audit quality. The chi-square goodness of fit test shows that the p-value of 0.2518 exceeds the 0.05 significance level, indicating that the probit regression model adopted in this study is a good fit for the data.

In addition, **Figure 1** shows the area under the curve, which is also the postestimation for probit regression after the goodness-of-fit test, and it also shows the accuracy of the model. We can see that the AOC indicates 0.8437 (84.37%), indicating that the fitted probit model outcome is accurate and correctly specifies the prediction of audit quality for the selected local accounting firm in Ghana. Meanwhile, the sensitivity and specificity also show that the model predicts a positive outcome when it is positive and a negative outcome when otherwise (see also Appendix for the sensitivity and specificity).

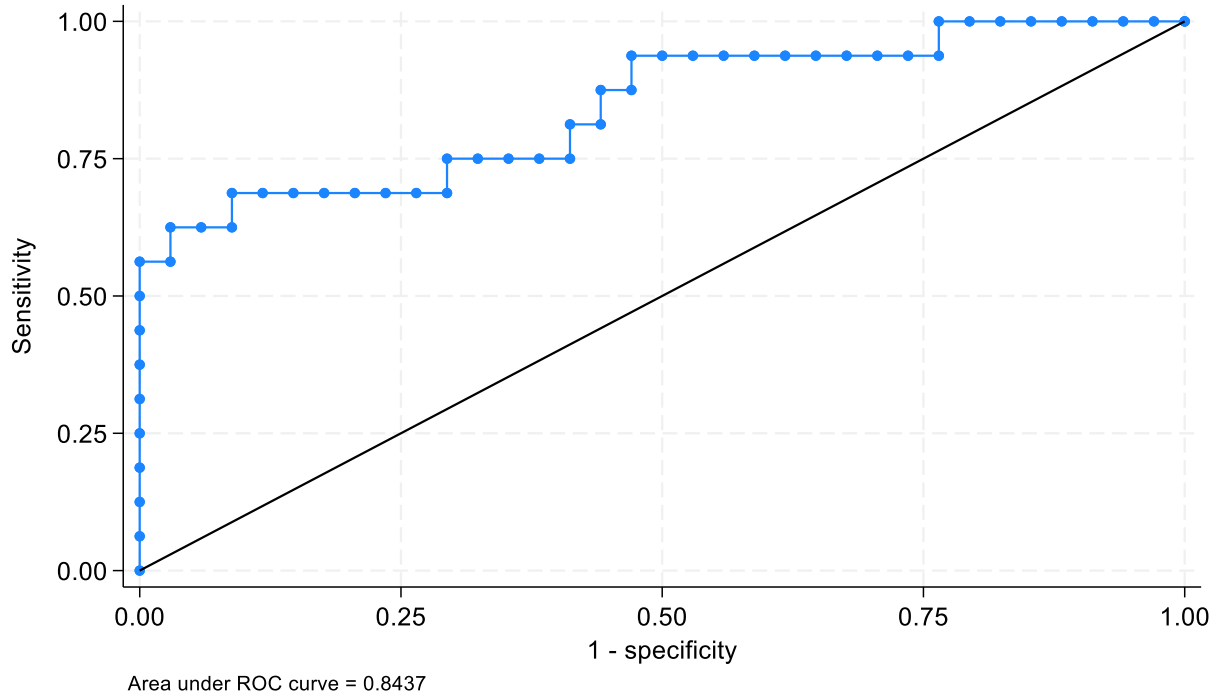

Figure 1: Area Under the Curve (AOC)

Table 3: Nonparametric Correlation

			Audit quality	Audit fees	ACS	ACGD	Leverage
Kendall's tau-b	Audit quality	Correlation Coefficient	1.000	.365**	-.372**	.023	-.105
		N	50	50	50	50	50
	Audit fees	Correlation Coefficient	.365**	1.000	-.154	.-.170*	-.070
		N	50	50	50	50	50
	ACS	Correlation Coefficient	-.372**	-.154	1.000	-.037	-.133
		N	50	50	50	50	50
	ACGD	Correlation Coefficient	.023	-.170*	-.037	1.000	.033
		N	50	50	50	50	50
	Leverage	Correlation Coefficient	-.105	-.070	-.133	.033	1.000
		N	50	50	50	50	50

** and *Correlation is significant at the 0.01 and 0.05 level (2-tailed) respectively

Source: Authors' computation using SPSS software

Table 3 reveals a significant and weak positive correlation between audit fees and audit quality, suggesting that the higher the audit fees, the higher the audit quality. Conversely, audit fees have a significant and weak negative correlation with audit committee gender diversity, suggesting that the higher the audit fees, the lower the audit committee gender diversity. This supported the second research hypothesis (H2), which states that there is a significant negative correlation between audit committee gender diversity and audit fees. This finding supports the work of Nekhili et al. (2020), who found a negative and significant relationship between audit committee diversity and audit fees. It went against the work of Abu (2021), who found that audit committee diversity has no significant relationship with audit fees, as well as Miglani and Ahmed's (2019), who also found a positive and significant relationship between audit committee diversity and audit fees.

Conclusion and policy implications

There has been little research on this subject that specifically focused on local accounting firms in Ghana, despite the fact that a number of factors, including the size of the audit committee, gender diversity within the audit committee, and leverage, have been found to have some degree of correlation with audit quality in different sectors, such as banking and manufacturing. By analyzing the effect of audit fees on the audit quality of local accounting firms in Ghana, this study aims to close this gap. This review will also consider variables such as leverage, gender diversity within the audit committee, and committee size. Even after accounting for variables like business leverage, gender diversity, and the size of the audit committee, the analysis revealed a significant relationship between audit quality and audit fees. Additionally, the study shows that paying more for audits results in higher audit quality, with higher audit fees having a positive and significant impact on audit quality. Further investigation also revealed a weak negative correlation between audit fees and gender diversity on audit committees, meaning that higher fees are associated with lower gender diversity.

Therefore, the Institute of Chartered Accountants, Ghana should establish sustainable audit fees guideline to improve audit quality. The fees guidelines should impose severe penalties, such as a license loss for the accounting firms that fail to comply with the regulated price. In addition, ICAG should consider other factors other than revenue of local accounting firms in the determination of appropriate audit fees.

References

Abu, S. (2021). Audit committee characteristics and audit fees of listed consumer goods sector in Nigeria. https://ssrn.com/abstract=3785240.

Abu, S. O., Yahaya, A. O., and Abah, C. (2018). Audit committee effectiveness and audit quality of listed insurance companies in Nigeria. International Journal of Research in Finance and Management, 1 (2), 35–44.

Abu Bakar, N. B., and Ahmad, M. (2009). Auditor independence: Malaysian accountant's perception. International Journal of Business and Management [Online], 4 (12), 129–141. Retrieved January 4, 2020, from https://doi.org/10.5539/ijbm.v4n12p129

Areas, A.A., Elder, R.J. and Beasley, M.S. (2011). Auditing and Assurance Services: An Integrated Approach, 14th ed. New Jersey: Pearson Education, Inc.

Arrunada, B. (2000). Audit quality: attributes, private safeguards and the role of regulations. The European Accounting Review, 9 (2), 205–225, 2017.

Babatolu, A. T., & Aigienohuwa, O. O. & Uniamikogbo, E. (2016). Auditor's Independence and Audit Quality: A Study of Selected Deposit Money Banks in Nigeria. International Journal of Finance and Accounting, 5(1): 13-21.

Davidson, R.A. and Neu, D. (1993). Note on the Association between Audit Firm Size and Audit Quality. Contemp. Account. Res., 9(2): 479-48.

Dennis, M. R., and Kunkel, A. D. (2004). Perceptions of Men, Women, And CEOs: The effects of gender identity. Social Behavior and Personality: an International Journal, 32(2), 155–171.

DeFond, M. L., Raghunandan, K. and Subramanyam, K. R. (2002). Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. Journal of Accounting Research, 40(4), 1247–1274.

Díaz, B.G., Fernández, R.G., & Díaz, A.L. (2015). Auditor tenure and audit quality in state-owned Spanish foundations, 18(2); 115-126.

Fitriany, S. Veronica, & Anggraita, V. (2016). Impact of Abnormal Audit Fees on Audit Quality: Indonesian Case. American Journal of Economics, 6(1): 72-78.

Jensen, Michael C. and W. H. (1976). Theory of the firm: Managerial Behavior, Agency Costs, and Ownership Structure. Journal of Financial Economics, 3(4), 305–360.

Ittonen, K., Miettinen, J., and Vähämaa, S. (2010). Does female representation on audit committees affect audit fees? Q. J. Financ. Acad. 49, 113–139.

Listya Y.R. & Sukrisno, A. (2014). Influence of Auditors Independence, Audit Tenure, and Audit Fee on Audit Quality of Members of Capital Market Accountant Forum in Indonesia. Procedia Soc Behav Sci.164:324-331.

Miglani, S., & Ahmed, K. (2019). Gender diversity on audit committees and its impact on audit fees.: Evidence from India. Accounting Research Journal, 32(4), 568–586.

Nekhili, M., Gull, A. A., Chtioui, T., & Radhouane, I. (2020). Gender-diverse boards and audit fees: What difference does gender Quota Legislation make? Journal of Business, Finance and Accounting, 47(1–2), 52–99.

Onaolapo, A.A., Ajulo, O.B., & Onifade, H.O. (2017). Effect of Audit Fees on Audit Quality: Evidence from Cement Manufacturing Companies in Nigeria. European Journal of Accounting, Auditing and Finance Research, 5(1):6-17.

Palmrose Z.-V (1986). Audit fees and auditor size: Further evidence. Journal of Accounting Research, 24(1), 97–110. https://doi.org/10.2307/2490806

Salehi, M., & Azary, Z. (2008). Fraud detection and audit expectation gap: Empirical evidence from Iranian bankers, International Journal of Business and Management, 3(10), 65-77.

Securities and Exchange Commission (2000). Revision of the commission's auditor independence requirements (Releases No. 33-79919). Washington DC, USA: Author.

Soyemi, K.A. and Olowookere, J.K. (2013). Determinants of External Audit Fees: Evidence from the Banking Sector in Nigeria. Research Journal of Finance and Accounting.

Zalata, A. M., Elzahar, H., McLaughlin, C., & Ntim, C. G. (2020). External audit quality and firms' credit score. *Cogent Business and Management*, 7(1), 1–16.

Appendix

Classified + if predicted Pr(D) >= .5
True D defined as Auditquality != 0

Sensitivity	Pr(+| D)	62.50%
Specificity	Pr(-|~D)	97.06%
Positive predictive value	Pr(D| +)	90.91%
Negative predictive value	Pr(~D| -)	84.62%
False + rate for true ~D	Pr(+|~D)	2.94%
False - rate for true D	Pr(-| D)	37.50%
False + rate for classified +	Pr(~D| +)	9.09%
False - rate for classified -	Pr(D| -)	15.38%
Correctly classified		86.00%