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Abstract: This study investigates the moderating effect of corporate governance on the associations of internal audit and quality of internal audit with quality of financial reporting among commercial banks in the Republic of Yemen. The final sample includes 210 internal auditors, heads of internal auditors, chairpersons, and members of audit committees. Using a survey-based methodology, the results of the Smart-PL4 analysis showed a positive association between internal audit and quality of internal audit and quality of financial reporting. Interestingly, the results showed an insignificant association between internal audit, quality of internal audit, and quality of financial reporting when considering the moderating effect of corporate governance. The findings of this study contributes valuable insights to the existing literature on the influence of internal audit, quality of internal audit, and corporate governance on quality of financial reporting in developing countries, specifically in Yemen.

Keywords: internal audit; quality of internal audit; quality of financial reporting; corporate governance; banks; Yemen; Smart PLS 4

JEL Specification: G21; G34; M42

Introduction

The escalating concerns over accounting fraud jeopardizing bank operations, coupled with global company failures and widespread social corruption, highlight the increasing imperative for accounting professionals to adhere to robust ethical standards (Hazaea et al., 2021). In response to past accounting mishaps, Internal Auditing (IA) is a critical element in ensuring effective controls, with its assurance and advisory responsibilities playing a vital role in supporting risk management efforts (Jarah et al., 2022). The application of a robust internal auditing program is deemed essential for banks to monitor and oversee their operations effectively. Internal auditing serves a pivotal role in ensuring that the Accounting System (AS) encounters stakeholder demands, historically being perceived as a guarantee of financial statement accuracy and a means to ensure compliance with financial quality security standards. Despite this perception, the prevalence of fraudulent financial transactions has not significantly diminished solely due to internal auditing efforts (Ogoun and Atagboro, 2020).

Internal auditors must identify and analyze the risks of accounting errors (Drábková and Pech, 2022). The effectiveness of IA is prejudiced by audit's overall effectiveness, the experience of the auditing, and the impartiality of IA. While internal auditors are responsible for identifying financial anomalies (Betti et al., 2021), their ability to spot fraud is contingent on their education and

professional experience. Notwithstanding the significance of internal auditing, literature often emphasizes its efficiency and overall function rather than its specific duty (Drogalas et al., 2017). In the economic climate, it has adopted various accounting alternatives, including Computer Assisted (CA) approaches, to enhance financial information and meet self-objectives related to profitability and financial status. However, the use of these approaches in financial statement preparation can potentially undermine their credibility, necessitating a thorough understanding of the processes involved and the extent to which IA can employ audits to mitigate risks associated with these approaches.

This study aims to explore various aspects related to IA and banks' utilization of CA. The researchers seek new data to enhance their theoretical understanding of factors influencing the effectiveness of IA in mitigating CA practices that deviate from accepted accounting standards. The anticipated results aim to provide valuable guidance to bank departments, offering insights into the risks associated with CA and emphasizing the crucial role of IA in minimizing such accounting practices. The researchers believe that their findings will contribute to clarifying the concept of CA methods, serving as beneficial information for decision-makers and policymakers. The objective of financial reporting is to furnish clients with truthful, relevant, intelligible, comparative, timely, and verifiable financial information to facilitate decision-making. The effectiveness of financial reporting is crucial for resource allocation within a firm, as only accurate financial reporting can impact a company's ability to secure funding from external sources and ensure accountability (IASB, 2013). Financial reports play a pivotal role in influencing judgments by users of financial information regarding the company's likelihood of experiencing future net cash inflows and the efficiency of financial resource management by the management team (IFRS, 2020). Consequently, reliable financial reporting is highly valued by various stakeholders, including shareholders, lenders, and suppliers, as it forms the basis for informed decision-making and fosters trust in the financial health and integrity of the reporting entity.

Financial reporting fraud is a widespread global issue, with reports indicating that a significant percentage of organizations fail to meet the required standard of quality in their financial reports. The Price Waterhouse Coopers Survey in 2018 found that most reports did not meet the necessary standards. Notable cases, such as PwC's two-year ban in India for failing to detect Satyam's exaggerated revenue, and the SEC's revelations about Hertz Global Holdings Inc. and Miller Energy, highlight the seriousness of the problem. In Uganda, financial reporting mistakes by commercial banks have been recurring since 1999, leading to concerns raised by researchers. For instance, the value of non-performing loans reported by Crane Bank in 2016 was significantly lower than the actual amount. Similar concerns were raised about the financial reporting of Imperial Bank by the Bank of Uganda in 2015.

The literature suggests that factors such as corporate governance (CG) and QIA may impact quality of financial reporting (QFR). Effective CG is noted to enhance the oversight and management of operations. Internal auditors improved the standard of financial reporting through their mission to oversee processes and procedures related to QIA. Stakeholder theory emphasizes the need for businesses to establish efficient checks and balances, including CG. However, there is a lack of clarity on the strategies that financial institutions should employ to encourage honest financial reporting. Research in emerging nations, particularly in Africa, regarding board independence, its performance, and IA effectiveness is limited. Existing studies tend to focus on non-African countries, narrowing their scope to specific sectors, such as Tier IV Microfinance Institutions in the case of Nalukenge et al. (2017). Nalukenge et al. (2018) explored the internal controls and company governance on IFRS compliance, establishing a strong connection between IFRS compliance and CG.

The authors note a scarcity of studies on financial reporting, with Nkundabanyanga et al. (2013) being an exception as they defined QFR in the understandability of financial information. Generalizing case study outcomes, according to (Saunders et al., 2009), is deemed feasible only for individual case study organizations due to the diverse systems and backgrounds of each organization. In contrast to the single-government ministry focus (Nkundabanyanga et al., 2013), which may pose challenges in understanding findings, this study concentrates on financial

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3

institutions, predominantly those in private ownership. Unlike Nalukenge et al. (2013) broadened its scope to financial institutions. The researchers, exemplified by (Bananuka et al., 2018), assert that studies like the present one emphasizes general responsibility more than financial reporting accuracy, considering accountability as an integral part of financial reporting.

Literature Review

Internal Audit

An audit serves as an objective verification and advisory process that contributes to its effectiveness. The role of IA is to assess activities for compliance, alignment with best financial practices, and effectiveness in achieving financial goals, to improve financial and accounting processes (Beatty et al., 2021). IA also works to minimize misstatements arising from internal processes and recorded transactions. Contrary to the common perception of auditors solely focusing on fraud and errors, their primary objective is to evaluate the effectiveness of IA (Drogalas et al., 2017). It audits and analyses financial accounting principles, procedures, and elements, providing management with objective data and recommendations for efficient utilization (Munteanu et al., 2016). IA is considered a crucial element in developing accounting procedures to mitigate the impact of creative accounting (Ogoun and Atagboro, 2020). The involvement of IA lends greater credibility to financial statements and helps mitigate the consequences of potential issues. Internal auditors are expected to be well-versed in IA techniques, given their role in understanding audits (Saleh et al., 2021). However, adherence to industry ethics is essential for internal auditors to provide valuable insights and practical solutions to IA issues. The credit crisis highlighted by Momani and Obaidat (2013) increased the probability of fraud and unethical behavior, emphasizing the crucial role of auditors (Rakibe et al., 2021). The hypothesis (H1) posits that IA has a positive impact on QFR in the banking sector.

The QIA

Rossi and Prevost (2016) worked on perceptions of QIA were examined among internal auditors, and members of IIA. While it defines quality as adherence to advised standards and procedures, external auditors primarily viewed QIA. On the other hand, IA members believed that QIA was determined by the significance management attributed to internal audit reports. The study considered competence, independence, and dedication to professional norms. As per Pananuka et al. (2018), effective internal auditing encompasses the evaluation of internal controls. The study argues that IA staff who lack professionalism, independence, and competence are not fulfilling their duties. Therefore, the hypothesis (H2) posits that QIA positively influences QFR, underscoring the importance of effective internal auditing practices in contributing to accurate and reliable financial reporting.

BG and SFR

Nalukeng et al. (2017) discovered a relationship between financial expertise and IC. However, board independence did not exhibit a similar association. In a subsequent study, Nalukeng et al. (2018) identified a robust connection between IFRS compliance and governance, specifically evaluating the effectiveness of the board function in financial literacy, independence, and governance. Mansour et al. (2013) suggested that full governance may not be a realistic option without governance. This study focuses on how governance influences accuracy and QFR. Governance is deemed essential for financial institutions and banks to enhance productivity, management, and regulation (Changzi and Saeed, 2014). Consequently, various stakeholders significantly influence the conduct and implementation. The association between poor QFR and governance behaviors, such as financial statement fraud and earnings management, has been consistently established (Beasley et al., 2001). Online reporting and board functional effectiveness have also been found to be closely related (Bananuka et al., 2019a, b, c). Studies on IFRS adoption highlighted a significant relationship between the use of IFRS in Microfinance Institutions (MFIs) and

board effectiveness, incorporating financial literacy as one of the measures. Additionally, Nalukeng (2020) identified a significant relationship between IFRS disclosure standards. The above evidence underscores how traditional governance practices, including unbiased financially literate, and capable directors, can elevate the standard. Hence, the hypothesis (H3) posits that BG has a positive impact on QFR, emphasizing the pivotal role of governance in ensuring accurate and reliable reporting in this sector.

Corporate Governance, IA, and Quality of Financial Reports

The importance of BG has been recognized since the early 1930s, particularly with the separation of ownership and management. BG has gained global momentum due to a need for assurance and confidence, economic shocks, and the necessity to reform governance structures and norms. BG is considered a vital element of market discipline, ensuring competitive advantages for banks with effective governance systems. Effective BG practices are crucial for banks to fulfill legal requirements and fiduciary duties to investors (Levis, 2006). The efficiency of BG practices also impacts the resilience of the financial system and aids in resolving disputes among shareholders, executives, and other stakeholders (Oino, 2019). High-quality BG is positively related to IA. Literature shows a strong association between the efficiency of BG and IC, addressing IC flaws with stronger board management, audit committees, and senior management (Johnston et al., 2011). IA is recognized as a core element of BG, playing a crucial role in offering assurances and recommendations to support the supervision of the BG (Abdullah, 2014). The contribution of IAF to BG is considered indisputable, especially in light of recent scandals emphasizing the need for good governance (Khalif & Samaha, 2014).

Hypothesis 4 (H4). *BG moderates the relationship between IA and QFR.*

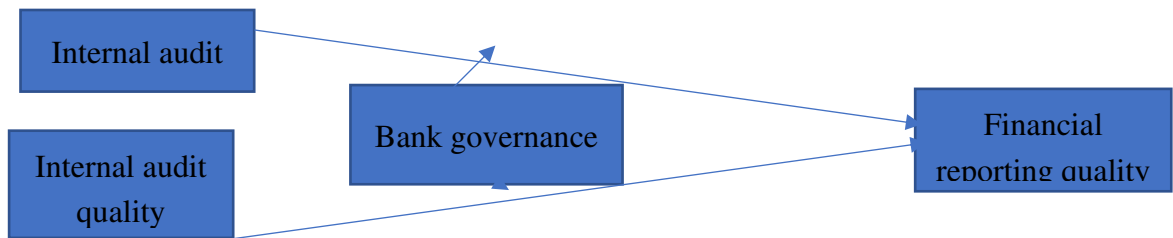**Hypothesis 5 (H5).** *BG moderates the relationship between QIA and QFR.*

Figure 1.

Methodology

The study employed a combination of quantitative and qualatitive methods, focusing on commercial banks in the Republic of Yemen. The study sample included 27 commercial banks out of a total of 55, chosen for their public attention and rigorous monitoring. Foreign exchange bureaus were excluded due to their distinct operational characteristics and vulnerability to external shocks. MFIs were also excluded from the analysis until 2019, as they were not subject to strict oversight standards. Data collection took place from February 2023 to August 2023, with 210 participants from internal audit departments in the target organizations responding to participant profile questionnaires. Among the respondents, 115 were senior financial officials and internal audit managers, with 34 women (16.2%) and 176 men (83.8%). Most participants held a university degree, including 54 with a bachelor's degree (25.6%), 61 with a master's degree (29.3%), and 95 with a doctorate degree (45.1%). Additionally, 183 respondents (87.14%) had professional certifications such as the CA program and ACCA course. Regarding age distribution, 36 participants were in the 20-30 age group (17.2%), 53 in the 31-40 age group (25.3%), 56 in the 41-50 age group (15.0%), and 65 were 51 years or older (26.6%). Responses were collected at the individual commercial bank level, with 27

commercial banks with a response rate of 74%. The table provides additional information about the characteristics of the respondents.

The data collection for this investigation utilized a well-established questionnaire featuring closed-ended questions with a 5-point Likert scale. Participants were asked to express their agreement or disagreement with assertions, with scale points ranging from strongly disagree (1) to strongly agree (5). Closed questions were chosen for their efficiency and effectiveness for both participants and researchers. The questionnaire was distributed to academics and professionals, including auditors, accountants, and financial managers, to ensure the applicability of the questions. Expert opinions were sought, and a Content Validity Index (CVI) was calculated, resulting in a CVI of 0.90, indicating high content validity. Recommendations from both practitioners and academics were incorporated to enhance the questionnaire further. The validity of the questionnaire was assessed using Cronbach's alpha values, with coefficients for each study exceeding 0.7, indicating high reliability. The independence, effectiveness, and expertise of the board of directors were considered cornerstones of BG, based on perspectives from academics such as Nalukeng et al. (2018) and Nkondabanyanga and Ahiaozo (2012). QIA was operationalized with employee independence, following the approaches of Rossi and Prevot (2016) and Goul et al. (2013). Business size and age were also considered as potential influencing factors, drawing from Bartov et al. (2000). To avoid misinterpretation of study hypotheses, confounding factors were carefully considered, and details of the measurement variables are provided in the table.

The reporting quality in the Republic of Yemen has been rated at 4.7, with an overall rating of 5.97. However, the overall rating of the two indicates that there are several banks with subpar financial records in the country. The questionnaires for this study were distributed to chief financial officers, chief accountants, and internal audit managers in the finance departments. A score of at least two suggests that issues with the financial reporting in the Republic of Yemen need to be addressed. The board's Corporate Governance measures, including independence (4.2), expertise (3.7), and competence (4.3), indicate a significant dependency on these factors for effective governance. However, the scores suggest that certain organizations' boards of directors are perceived as financially illiterate and unintelligent, potentially contributing to poor financial reporting in the Republic of Yemen. The average score for QIA was 3.9, indicating subpar performance in terms of employee ability, adherence to industry standards, and independence. This further underscores the need for improvement in internal auditing practices. To demonstrate the data's normality, measures for skewness and kurtosis are presented. According to recommendations by Field (2009), all skewness and kurtosis values fall within an acceptable range between -3 and +3.

In the study, the independent variables include IA, QIA, and BG, acting as moderating variables. The dependent variable is QFR. For the measurement of IA, six items were utilized. Similarly, six indicators were derived for QIA. BG was assessed using six items, while eight items were proposed as indicators of QFR. Modifications to these components were made based on (Vadasi et al., 2019). The variables and hypotheses were validated and tested using PLS-SEM. The evaluation included assessing the reliability, discriminant validity, and convergent validity of the items for each research factor. Route coefficients, R2 values, and Q2 values were also computed to analyze the model. The R2 value indicates the variance in the dependent variable. Q2 assesses the model's predictive capacity. As per the guidelines by Hair Jr et al. (2016), 40% and 70% criteria may need to be eliminated if doing so improves the Composite Reliability (CR) or Average Variance Extracted (AVE) beyond a predefined threshold. In this study, the result was 26 retained items.
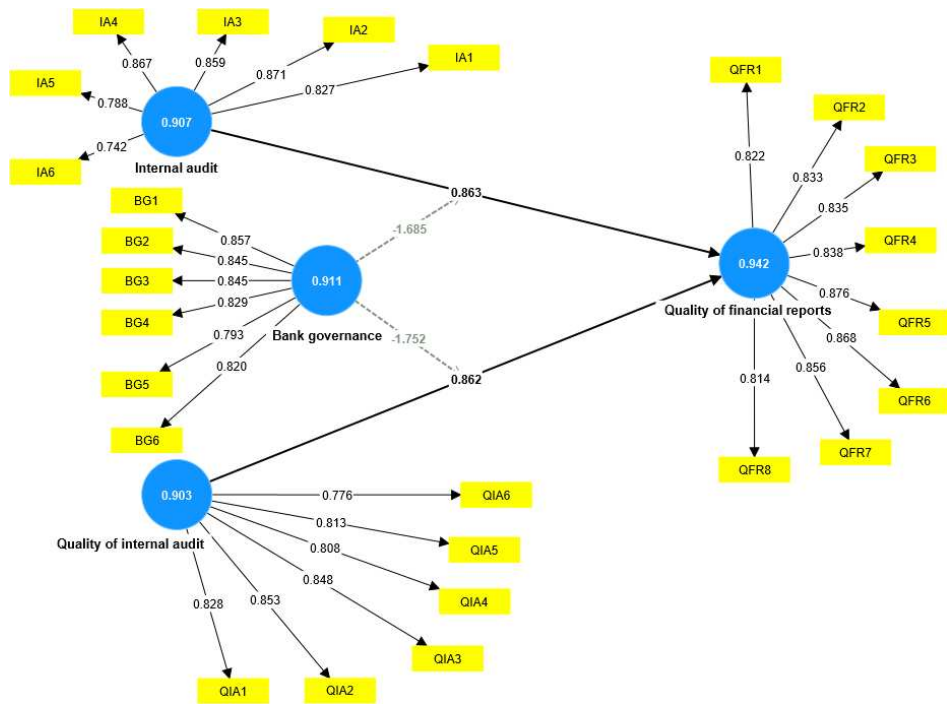
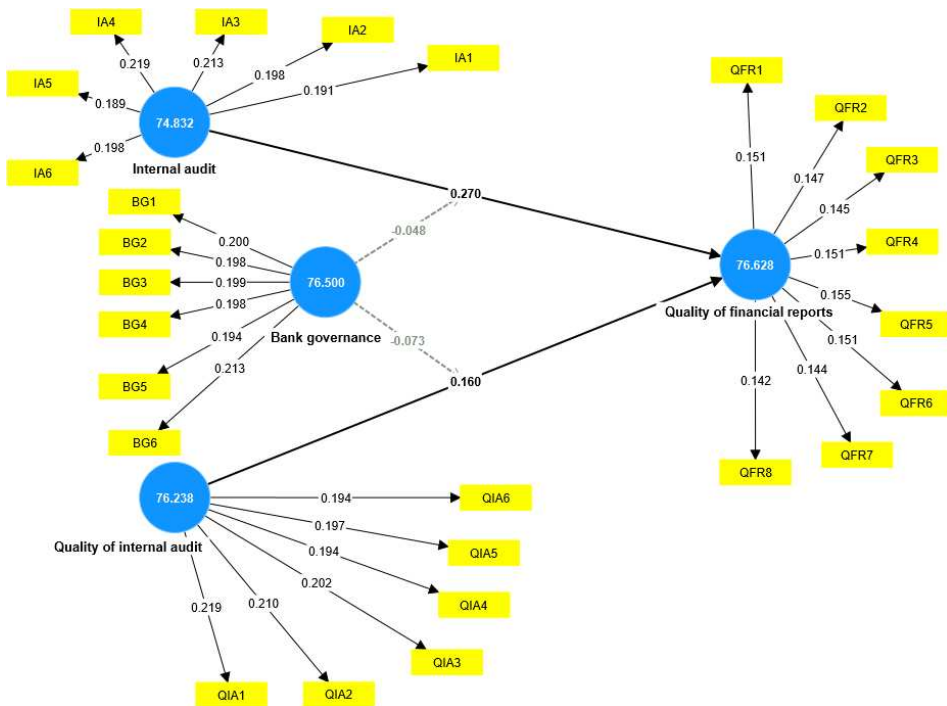**Figure 2.** The PLS algorithm of the measurement model.

Figure 3. The PLS algorithm of the measurement model. % of variance explained by a factor of uni-dimensionality. The second model for analyzing A Smart Plus.

Table 1. Factor analysis (EFA) and Confirmatory factor analysis (CFA).

	EFA			CFA
		PCA	Reliability	Convergent validity

Construct	Element	Factor Loadings	% of variance explained by a factor of unidimensionality	Cronbach's alpha	Factor loading b	T values	P values
Internal audit			74.832	0.907			
	IA1	0.827			0.826	37.976	0.000
	IA2	0.871			0.870	52.603	0.000
	IA3	0.859			0.859	46.871	0.000
	IA4	0.867			0.866	48.943	0.000
	IA5	0.788			0.787	27.507	0.000
	IA6	0.742			0.740	22.597	0.000
Quality of internal audit			76.238	0.903			
	QIA1	0.828			0.827	37.129	0.000
	QIA2	0.853			0.852	44.425	0.000
	QIA3	0.848			0.847	49.936	0.000
	QIA4	0.808			0.807	30.336	0.000
	QIA5	0.813			0.812	37.352	0.000
	QIA6	0.776			0.775	27.029	0.000
Bank governance			76.500	0.911			
	BG1	0.857			0.855	39.827	0.000
	BG2	0.845			0.844	40.500	0.000
	BG3	0.845			0.844	47.556	0.000
	BG4	0.829			0.827	37.937	0.000
	BG5	0.793			0.791	30.788	0.000
	BG6	0.820			0.818	31.649	0.000
Quality of financial reports			76.628	0.942			
	QFR1	0.822			0.820	35.296	0.000
	QFR2	0.833			0.832	39.237	0.000
	QFR3	0.835			0.834	35.089	0.000
	QFR4	0.838			0.837	36.702	0.000
	QFR5	0.876			0.875	53.095	0.000
	QFR6	0.868			0.867	53.360	0.000
	QFR7	0.856			0.855	45.290	0.000
	QFR8	0.814			0.812	33.582	0.000

The evaluation of the measurement model involved assessing the convergent and discriminant validity of the latent variables using specific items. The measurement models met the requirements based on the gathered data. The external loading was examined to assess the model, with higher

external factor loadings (Hair Jr. et al., 2014). Items with an external loading greater than 0.60 were retained, resulting in the use of 26 different items in the study. Additional assessments for data consistency, such as Cronbach's alpha and CR, were conducted to provide a more accurate measure of data consistency. ICR measures the extent to which each item on a single scale measures the same variable. For convergent validity, the AVE for each latent variable needed to be greater than 0.50, and the AVE test findings for all variables were indeed higher than 0.5, indicating a high level of internal consistency. The data presented in Table 1 and Figure 1 suggest that the model is accurate and valid. Therefore, the existing measuring strategy used in this work can be considered suitable for conducting further analyses.

Table 2. Cross loadings.

Study variables		IA	QIA	BG	QFR
Internal audit	IA1	0.827	0.686	0.668	0.775
	IA2	0.871	0.692	0.670	0.700
	IA3	0.859	0.724	0.708	0.753
	IA4	0.867	0.764	0.710	0.772
	IA5	0.788	0.646	0.637	0.669
	IA6	0.742	0.637	0.659	0.701
Quality of internal audit	QIA1	0.728	0.828	0.757	0.764
	QIA2	0.707	0.853	0.726	0.731
	QIA3	0.704	0.848	0.699	0.703
	QIA4	0.660	0.808	0.648	0.678
	QIA5	0.647	0.813	0.662	0.686
	QIA6	0.684	0.776	0.675	0.678
Bank governance	BG1	0.668	0.725	0.857	0.742
	BG2	0.650	0.677	0.845	0.731
	BG3	0.704	0.681	0.845	0.737
	BG4	0.656	0.674	0.829	0.733
	BG5	0.686	0.710	0.793	0.719
	BG6	0.714	0.755	0.820	0.788
Quality of financial reports	QFR1	0.744	0.717	0.777	0.822
	QFR2	0.725	0.716	0.747	0.833
	QFR3	0.703	0.721	0.736	0.835
	QFR4	0.749	0.738	0.762	0.838
	QFR5	0.760	0.763	0.782	0.876
	QFR6	0.739	0.739	0.765	0.868
	QFR7	0.713	0.714	0.722	0.856
	QFR8	0.684	0.701	0.725	0.814

The visual representation of the structural model illustrates the relationships and the degree of influence between IA, QIA, BG, and QFR. Additionally, the diagram illustrates the moderating effects of a control-oriented culture, highlighting the importance of a supportive culture within banks for a strong association between IA, QIA, BG, and QFR. The results indicate that there needs to be a

cultural environment within banks that aligns with these objectives to establish a robust connection between IA, QIA, BG, and QFR. Furthermore, the findings suggest that bank governance that values IA, QIA, BG, and QFR enhances IA, QIA, and BG. This emphasizes the integral role of a supportive governance structure in promoting effective IA practices and ensuring QFR. Cross-loading of the constructs was examined to assess if any item loaded more heavily on its associated construct. The results table provides insights into how consistently each item loaded on its respective construct compared to other iterations, demonstrating the precision of the measurement approach used in the study.

Table 3 provides measures of internal consistency to ensure the reliability of items. Composite reliability, which assesses the internal consistency of components, was examined in this study. The composite reliability values (rho_a) for each construct fell within the recommended ranges, indicating strong internal consistency. Additionally, consistency in item connectivity was ensured by evaluating composite reliability values (rho_c), which also demonstrated high internal consistency. Cronbach's alpha, another test of internal consistency, was employed in this study. The Cronbach's alpha values for each construct exceeded the threshold value, reinforcing the internal consistency of the items within each construct. Convergent validity, which assesses the measurement of the same construct and its association with other variables, was confirmed through the calculation of AVE. Each construct in the study exceeded the AVE threshold of 0.5, indicating a satisfactory level of convergence. The figure illustrates the assessment process. Discriminant validity, which examines the extent to which one construct differs from others, was evaluated using the Fornell-Larcker criterion and the HTMT criteria. The study ensured that discriminant validity was established based on these criteria.

Table 3. Construct reliability and validity.

	Cronbach's alpha	rho_a	rho_c	AVE
Internal audit	0.907	0.908	0.928	0.684
Quality of internal audit	0.903	0.905	0.926	0.675
Bank governance	0.911	0.911	0.931	0.692
Quality of financial reports	0.942	0.942	0.952	0.711

The AVE values are higher than 0.5, with values exceeding 0.70. According to Pavlou and Fygenson (2006), these results indicate good convergent validity for the measurement model. Discriminant validity, which assesses the ability of items to differentiate between constructs, was also examined. The study considered the correlations between constructs and ensured that the square root of the AVE for each construct was substantially larger than the correlation of that construct with other constructs. The table illustrates the necessary discriminant validity of the measurement model based on these criteria. Cross-loadings of the various structures were also analyzed to determine if any particular structure was more heavily loaded than others on its associated constructs. According to Table 4, each item loads more on its own construct than on other constructs, further demonstrating the good discrimination of the measurement model.

Table 4. Discriminant validity.

Bank governance	BG	IA	QFR	QIA	BG x IA	BG x QIA

	Bank governance	IA	QFR	QIA	BG x IA
IA	0.899				
QFR	0.963	0.932			
QIA	0.931	0.924	0.933		
BG x IA	0.852	0.792	0.868	0.817	
					0.975
BG x QIA	0.870	0.794	0.877	0.825	

Table 5 presents the results of the Fornell-Larcker discriminant validity criterion. Values in bold type indicate square roots of AVEs on diagonals that are greater than the correlations between constructs (represented by the corresponding row and column values). The variables demonstrate better discriminant validity when the square roots of AVEs are larger than the correlations with other constructs. According to (Awang, 2014), discriminant validity is satisfactory when the correlation between exogenous components is less than 0.90. Therefore, the findings in Table 5 suggest that each construct in the study exhibits satisfactory discriminant validity.

Table 5. Fornell-Larcker criterion.

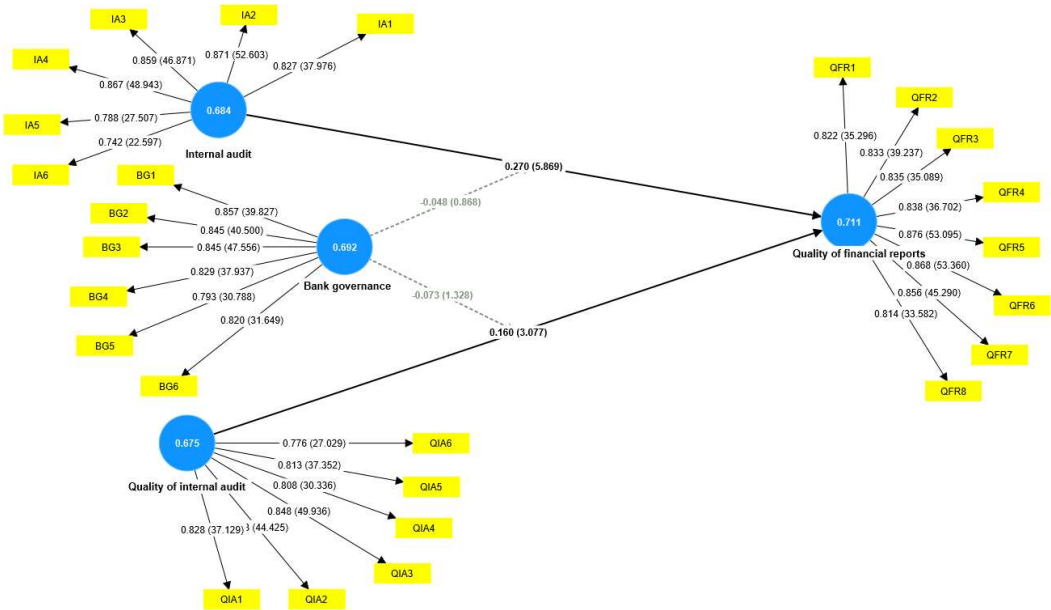|	BG	IA	QFR	QIA
BG	0.832			
IA	0.818	0.827		
QFR	0.893	0.863	0.843	
				0.822
QIA	0.847	0.839	0.862	

Figure 4. The PLS algorithm of the measurement model.
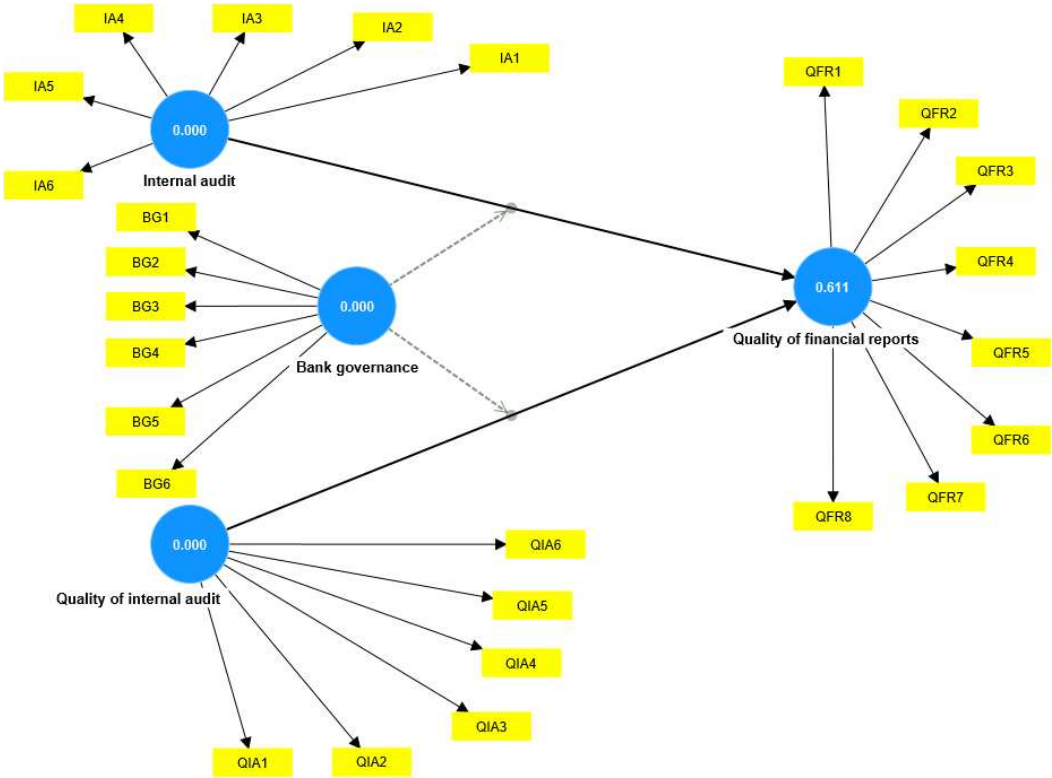
Figure 5. The PLS algorithm of the measurement model.

Table 6. Path coefficients.

		T statistics		Decision
Relationship	beta	(|O/STDEV|)	P values	
BG -> QFR	0.332	6.227	0.000	Supported
IA -> QFR	0.270	5.869	0.000	Supported
QIA -> QFR	0.160	3.077	0.002	Supported
BG x IA -> QFR	-0.048	0.868	0.385	Not Supported
BG x QIA -> QFR	-0.073	1.328	0.184	Not Supported

STDEV, T values, p values

The proposed study hypothesis (H1) is that IA positively affects the QFR. The results showed a positive and significant relationship between banks' IA and the QFR (b = 0.270, T = 5.869, p > 0.000), and hypothesis H1 was supported in this study. Hypothesis H2 is that QIA positively affects QFR. The results (b = 0.160, T = 3.077, p > 0.000) indicate that there is a positive and significant relationship between the QIA and the QFR, and hypothesis H2 was accepted. Hypothesis H3 proposes that BG positively affects the QFR. The results showed (b = 0.332, T = 6.227, p > 0.000), that is, BG is positively related to the QFR, and in this study, the proposed third hypothesis was accepted. The proposed hypothesis H4 is that BG works to modify the relationship between IA and the QFR. The results show (b = -0.048, T = 0.868, p < 0.000), meaning that BG does not modify the relationship between IA and the QFR, as the value of (b) is less than 0 and the value of (T) is less than 2, so the fourth hypothesis was rejected. Hypothesis H5: BG moderates the relationship between QIA and QFR. Based on the results (b = -0.073, T = 1.328, p < 0.000), this study discovered that BG does not modify the relationship

between the QIA and the QFR, as the value of (b) is less than 0 and the value of (T) is less than 2, so it was Reject the fifth hypothesis.

The study delved into the examination of its hypotheses and the establishment of correlations among the research variables through the utilization of the PLS technique and a structural model. The estimated Q2 values were derived from t statistics, path coefficients, and R2. Path coefficients were instrumental in revealing the consistency and direction of correlations, while t statistics and standard errors provided insights into the effect size. The R2 value served as an indicator of the proportion of variation in the dependent variable. The explanatory power of the proposed model was influenced by variations in the dependent variables, and its predictive capacity was assessed by exploring whether the model could accurately predict outcomes using data that was not part of its parameter development. According to the study's findings and R2 values, the suggested framework accounted for approximately 53% of the variation in the effectiveness of IA and QIA. This suggests that IA and QIA, as independent variables, could explain 53% of the variation in the QFR score and impact rating. Therefore, the proposed framework is deemed to have a satisfactory level of justification, as suggested by Chen (1998b). Sensitivity analysis through innervation trials with omission yielded second quartile counts comparable to, but significantly higher than, zero and positive values as per Chen (1998b). In this context, the model's explanatory power and predictive utility were considered adequate. The detailed findings are presented in Table 7.

Table 7. Values R², f², Q².

	Error	2.5%	97.5%	R	F	Q2	Decision
BG -> QFR	-0.001	0.224	0.435		0.175		Supported
IA -> QFR	0.001	0.177	0.359		0.149		Supported
QIA -> QFR	0.001	0.060	0.266	0.877	0.044	0.611	Supported
BG x IA -> QFR	0.003	-0.156	0.061		0.004		Not Supported
BG x QIA -> QFR	-0.002	-0.185	0.031		0.008		Not Supported

Results Descutions

In this study, our primary objective was to explore the direct influence of IA and QIA on QFR. Notably, we investigated whether corporate governance (BG) acts as a moderator in shaping the relationships among internal auditing, QIA, and the enhancement of QFR within the specific context of the Yemen Central Bank (YCB). The study encompassed the evaluation of IA, QIA, BG, and QFR. The first hypothesis posited that IA positively affects QFR. The study conclusively established that internal auditing has a positive and significant impact on QFR, with (b = 0.270, T = 5.869, p > 0.000), thereby supporting the acceptance of the hypothesis. The second hypothesis asserted that QIA positively affects QFR. The study validated this hypothesis by demonstrating a positive and significant effect of QIA on QFR (b = 0.160, T = 3.077, p > 0.000). The third hypothesis suggested that BG positively affects QFR. The study affirmed this hypothesis, revealing a positive and significant relationship between BG and QFR (b = 0.332, T = 6.227, p > 0.000). In contrast, the fourth hypothesis, proposing that BG moderates the relationship between IA and QFR, was not supported. The study demonstrated that BG does not alter the relationship between IA and QFR, with (b = -0.048, T = 0.868, p < 0.000), leading to the rejection of the hypothesis. Similarly, the fifth hypothesis, asserting that BG moderates the relationship between QIA and QFR, was not validated. The study revealed that BG does not modify the relationship between QIA and QFR, with (b = -0.073, T = 1.328, p < 0.000), resulting in the rejection of the hypothesis. These findings align with the study conducted by (Fadzil et al., 2005), supporting the positive and significant relationship between IA and QFR. Additionally, they echo the conclusions of (Hazmi Ammar, 2019), emphasizing the crucial role of QFR positively correlating with IA's proactive measures, such as initiating investigations into fraud and irregularities. Moreover, (Donza et al., 2015) highlighted a strong and positive relationship between IA and QIA in terms of value addition, while our study results support the critical role of QIA in

fostering transparency and accountability, ultimately enhancing BG. It is noteworthy that our findings diverge from the results of Oussii et al. (2018), who found no significant relationship between the revealed IA flaws in commercial banks and the independence and impartiality of IA. These contradictions underscore the complexity and context-specific nature of governance dynamics. In conclusion, the study contributes valuable insights into the nuanced relationships among IA, QIA, BG, and QFR in the specific context of YCB. The results emphasize the multifaceted impact of internal auditing and underscore the critical role of QIA in promoting transparency and accountability, ultimately contributing to enhanced governance performance.

The study marks a pioneering endeavor as the first to seamlessly integrate IA and QIA. Utilizing QFR as a dependent variable and BG, the research delves into the examination of the Yemeni banking industry. In the context of the Middle East, this study emerges as one of the few endeavors that scrutinize the state of IA. Within Middle Eastern nations, studies on the QIA remain limited, with a handful of notable works (Oussii et al. 2018). This research seeks to bridge this knowledge gap by providing valuable insights into the practices of Internal Auditing in the Republic of Yemen. The evaluation encompasses an in-depth assessment of the effectiveness of the internal audit framework and explores the nuanced relationship between enhancing BG, financial reporting, and the QIA framework. The significance of these findings extends to practitioners, especially Chief Audit Executives (CAEs) aiming to bolster the effectiveness of business operations within their organizations. Internal auditors and CAEs can leverage these insights to identify specific areas for development, aligning their practices with organizational objectives. The research illuminates the internal audit framework components that wield an impact on the QIA. Commercial bank boards and advisory committees stand to benefit from the study's outcomes in executing their duties. This includes the strategic selection of chief audit executives, recruitment of IA specialists, and the ongoing assessment of the IA system to ensure sustained efficacy. In essence, this study not only breaks new ground in the integration of IA and QIA but also contributes actionable insights that can drive improvements in internal auditing practices and governance structures. The contextualized focus on Yemen's economic landscape adds unique value, making the research a significant resource for advancing best practices within the region.

Conclusion

The primary aim of this study is to explore the positive impact of internal audit and quality of internal audit on quality of financial reporting. Additionally, we investigate the nuanced relationship between internal audit, quality of internal audit, and quality of financial reporting, incorporating bank governance as a moderator variable. The outcomes of the research contribute to the existing literature, emphasizing the crucial role of internal audit and quality of internal audit in elevating the quality of financial reporting. Our formulated research hypotheses, with bank governance as a moderator, seek to understand how internal audit and quality of internal audit influence quality of financial reporting. The empirical results reveal a significant and positive association between internal audit and the quality level of financial reports. Notably, our findings underscore a positive relationship between internal audit, quality of internal audit, and quality of financial reporting. This underscores the value of internal auditing and quality of internal audit in enhancing quality of financial reporting, and instilling confidence in the improvement of internal control processes and the financial reporting framework. The study's contributions are manifold. Firstly, it bolsters existing research on the interconnectedness of internal audit, quality of internal audit, and quality of financial reporting. It accentuates the pivotal role of internal audit, its efficacy, and its capacity to enhance quality of financial reporting. Our research advocates for stricter internal controls, positing that strengthened internal audit and quality of internal audit, coupled with improved BG, can empower managers to elevate financial reporting standards in banks. It further provides a mechanism for audit committees to monitor internal audit processes and assess internal performance.

When incorporating bank governance as a moderator in the relationship between internal audit, quality of internal audit, and quality of financial reporting, the results show that BG as a moderator does not influence quality of financial reporting. Moreover, there is no positive relationship observed

between internal audit, quality of internal audit, and quality of financial reporting. Specifically, our findings suggest that regulators might benefit from reconsidering approaches to enhancing internal audit and quality of internal audit for improved financial reporting and internal control quality, fostering a resilient banking system. Acknowledging the study's limitations is crucial for a nuanced interpretation of the results. Firstly, our study's sample size is modest, a common characteristic in the Yemeni market. Secondly, our focus on the banking industry might overlook insights from other Yemeni economic sectors, encouraging future research to explore these areas. Thirdly, internal audit and quality of internal audit may possess additional characteristics not considered in our model, urging future investigations into factors like internal audit risk consulting, senior management support for internal audit and quality of internal audit, and bank governance to comprehensively enhance organizational practices and elevate financial reporting standards.

References

Al Momani, M. A., & Obeidat, M. I. (2013). The effect of auditors' ethics on their detection of creative accounting practices: A field study. International Journal of Business and Management, 8(13), 118-136.

ALbawwat, I. E., AL-Hajaia, M. E., & AL Frijat, Y. S. (2021). The Relationship Between Internal Auditors' Personality Traits, Internal Audit Effectiveness, and Financial Reporting Quality: Empirical Evidence from Jordan. The Journal of Asian Finance, Economics and Business, 8(4), 797-808.

Almatarneh, Z., Jarah, B., & Jarrah, M. (2022). The role of management accounting in the development of supply chain performance in logistics manufacturing companies. Uncertain Supply Chain Management, 10(1), 13-18.

Al-Twaijry, A. A., Brierley, J. A., & Gwilliam, D. R. (2003). The development of internal audit in Saudi Arabia: an institutional theory perspective. Critical Perspectives on Accounting, 14(5), 507-531.

Al-Yazidi, A. M., Abdullah, M. F., & Alhebry, A. A. (2022). The role of internal audit function in strengthening corporate governance: A case on Yemeni commercial banks. Journal of Emerging Economies and Islamic Research, 10(2), 90-109.

Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. Journal of International Accounting, Auditing and Taxation, 23(2), 74-86.

Amin, M. E. (2005). Social Science Research: Conception, Methodology &. Analysis. Makerere University, Kampala Uganda.

Awang, Z., Afthanorhan, A., Mohamad, M., & Asri, M. A. M. (2015). An evaluation of measurement model for medical tourism research: the confirmatory factor analysis approach. International Journal of Tourism Policy, 6(1), 29-45.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, 16, 74-94.

Bakalikwira, L., Bananuka, J., Kaawaase Kigongo, T., Musimenta, D., & Mukyala, V. (2017). Accountability in the public health care systems: A developing economy perspective. Cogent Business & Management, 4(1), 1334995.

Balaciu, D. E., Bogdan, V., Mester, I. T., & Gherai, D. (2012). Empirical evidences of Romanian auditors' behavior regarding creative accounting practices. Accounting and Management Information Systems, 11(2), 213-238.

Bame-Aldred, C. W., Brandon, D. M., Messier, W. F., Rittenberg, L. E., & Stefaniak, C. M. (2013). A summary of research on external auditor reliance on the internal audit function. Auditing: A Journal of Practice & Theory, 32(Supplement 1), 251-286.

Bananuka, J. (2020). Intellectual capital, isomorphic forces and internet financial reporting: evidence from Uganda's financial services firms. Journal of Economic and Administrative Sciences, 36(2), 111-134.

Bananuka, J., Night, S., Ngoma, M., & Najjemba, G. M. (2019). Internet financial reporting adoption: Exploring the influence of board role performance and isomorphic forces. Journal of Economics, Finance and Administrative Science, 24(48), 266-287.

Bananuka, J., Nkundabanyanga, S. K., Nalukenge, I., & Kaawaase, T. (2018). Internal audit function, audit committee effectiveness and accountability in the Ugandan statutory corporations. Journal of Financial Reporting and Accounting, 16(1), 138-157.

Bananuka, J., Tumwebaze, Z., Musimenta, D., & Nuwagaba, P. (2019). Determinants of adoption of international financial reporting standards in Ugandan micro finance institutions. African Journal of Economic and Management Studies, 10(3), 336-355.

Bank of Uganda (2017), Annual Supervision Report, December, 2017, Kampala, available at: https://islamicmarkets.com/.../bank-of-uganda-annual-supervision-report-2017 (accessed 21 February 2019).

Bartov, E., Gul, F. A., & Tsui, J. S. (2000). Discretionary-accruals models and audit qualifications. Journal of Accounting and Economics, 30(3), 421-452.

BCBS. (2012). The internal audit function in banks.https://www.bis.org/publ/bcbs223.htm

Beasley, M. S., & Petroni, K. R. (2001). Board independence and audit-firm type. Auditing: A Journal of Practice & Theory, 20(1), 97-114.

Betti, N., Sarens, G., & Poncin, I. (2021). Effects of digitalisation of organisations on internal audit activities and practices. Managerial Auditing Journal, 36(6), 872-888.

Bhasin, Madan Lal. 2016. Survey of creative accounting practices: An empirical study. Wulfenia Journal KLAGENFURT 23: 143–62.

Blackburn, R., & Jarvis, R. (2010). The role of small and medium practices in providing business support to small- and medium-sized enterprises.

Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees. (1999). Report and recommendations of the Blue Ribbon Committee on improving the effectiveness of corporate audit committees. The Business Lawyer, 1067-1095.

Bougie, R., & Sekaran, U. (2019). Research methods for business: A skill building approach. John Wiley & Sons.

Burton, F. G., Emett, S. A., Simon, C. A., & Wood, D. A. (2012). Corporate managers' reliance on internal auditor recommendations. Auditing: A Journal of Practice & Theory, 31(2), 151-166.

Cadbury, A. (1992). The financial aspects of corporate governance (Cadbury Report). London, UK: The Committee on the Financial Aspect of Corporate Governance (The Cadbury Committee) and Gee and Co, Ltd., 15.

Chambers, A. D., & Odar, M. (2015). A new vision for internal audit. Managerial Auditing Journal, 30(1), 34-55.

Changezi, N. I., & Saeed, A. (2014). Impact of corporate governance framework on the organizational performance. IOSR Journal of Business and Management, 16(1), 73-78.

Chen, F., Hope, O. K., Li, Q., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. The Accounting Review, 86(4), 1255-1288.

Chen, L. H., & Shao, Q. M. (2001). A non-uniform Berry–Esseen bound via Stein's method. Probability Theory and Related Fields, 120, 236-254.

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. MIS Quarterly, vii-xvi.

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. MIS Quarterly, vii-xvi.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. Modern Methods for Business Research, 295(2), 295-336.

Cooper, D. R., & Schindler, P. (2014). Business Research Methods. Mcgraw-hill.

Dawes, J. (2008). Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. International Journal of Market Research, 50(1), 61-104.

De Rossi, P., Buggia-Prévot, V., Clayton, B. L., Vasquez, J. B., Van Sanford, C., Andrew, R. J., ... & Thinakaran, G. (2016). Predominant expression of Alzheimer's disease-associated BIN1 in mature oligodendrocytes and localization to white matter tracts. Molecular Neurodegeneration, 11, 1-21.

Dellai, H., & Omri, M. A. B. (2016). Factors affecting the internal audit effectiveness in Tunisian organizations. Research Journal of Finance and Accounting, 7(16), 208-221.

D'Onza, G., Selim, G. M., Melville, R., & Allegrini, M. (2015). A Study on Internal Auditor Perceptions of the Function Ability to Add Value. International Journal of Auditing, 19(3), 182-194.

Drábková, Z., & Pech, M. (2022). Comparison of creative accounting risks in small enterprises: the different branches perspective.

Drogalas, G., Pazarskis, M., Anagnostopoulou, E., & Papachristou, A. (2017). The effect of internal audit effectiveness, auditor responsibility and training in fraud detection. Accounting and Management Information Systems, 16(4), 434-454.

Endaya, K. A., & Hanefah, M. M. (2016). Internal auditor characteristics, internal audit effectiveness, and moderating effect of senior management. Journal of Economic and Administrative Sciences, 32(2), 160-176.

Eulerich, M., Velte, P., & Theis, J. (2015). Internal auditors' contribution to good corporate governance. An empirical analysis for the one-tier governance system with a focus on the relationship between internal audit function and audit committee. An Empirical Analysis for the One-Tier Governance System with a Focus on the Relationship between Internal Audit Function and Audit Committee (July 1, 2015). Corporate ownership and Control, 13(1).

Field, A. (2009). Discovery Statistics Using SPSS: and sex, and drugs and rock 'n'roll.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

George, D., Theofanis, K., & Konstantinos, A. (2015). Factors associated with internal audit effectiveness: Evidence from Greece. Journal of Accounting and Taxation, 7(7), 113-122.

Getie Mihret, D., James, K., & Mula, J. M. (2010). Antecedents and organisational performance implications of internal audit effectiveness: Some propositions and research agenda. Pacific Accounting Review, 22(3), 224-252.

Ghamri, W. H. M. (2020). The Relationship between Creative Accounting Risks and Auditing Risks from the Perspective of External Auditors in Saudi Arabia. Financial Risk and Management Reviews, 6(1), 22-39.

Habib, A., & Jiang, H. (2015). Corporate governance and financial reporting quality in China: A survey of recent evidence. Journal of International Accounting, Auditing and Taxation, 24, 29-45.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26(2), 106-121.

Hair, Jr, J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I–method. European Business Review, 28(1), 63-76.

Hanim Fadzil, F., Haron, H., & Jantan, M. (2005). Internal auditing practices and internal control system. Managerial Auditing Journal, 20(8), 844-866.

Hazaea, S. A., Zhu, J., Al-Matari, E. M., Senan, N. A. M., Khatib, S. F., & Ullah, S. (2021). Mapping of internal audit research in China: A systematic literature review and future research agenda. Cogent Business & Management, 8(1), 1938351.

Hazami-Ammar, S. (2019). Internal auditors' perceptions of the function's ability to investigate fraud. Journal of Applied Accounting Research, 20(2), 134-153.

Hung, D., & Tuan, T. (2019). Factors affecting the effectiveness of internal control in joint stock commercial banks in Vietnam. Management Science Letters, 9(11), 1799-1812.

Hütten, C., & Sessar, C. (2011). International Accounting Standards Board (IASB).

IFRS (2020), "Conceptual framework for financial reporting", available at: https://www.ifrs.org/-/media/project/conceptual-framework/fact-sheet-project-summary-and-feedback-statement/ conceptual-framework-project-summary.pdf (accessed 20 June 2020).

Jachi, M., & Yona, L. (2019). The impact of ethics & objectivity of internal audit personnel on transparency & accountability case of Zimbabwe local authorities. European Journal of Business and Management, 11(7), 108-124.

Jarah, B. A. F., & Iskandar, T. B. M. (2019). The mediating effect of acceptance of using AIS on the relationship between the accounting information systems and financial performance in Jordanian companies. International Journal of Research and Innovation in Social Science (IJRISS), 3, 256-63.

Jeremiah, L. (2019). Uchanganuzi wa Kishazi Tegemezi cha Kisukuma: Mtazamo wa X-Baa" (Doctoral dissertation, The Open University of Tanzania).

Johnstone, K., Li, C., & Rupley, K. H. (2011). Changes in corporate governance associated with the revelation of internal control material weaknesses and their subsequent remediation. Contemporary Accounting Research, 28(1), 331-383.

K. Johl, S., Kaur Johl, S., Subramaniam, N., & Cooper, B. (2013). Internal audit function, board quality and financial reporting quality: evidence from Malaysia. Managerial Auditing Journal, 28(9), 780-814.

Kaawaase, T. K., & Nkundabanyanga, S. K. (2017). Perceived auditor independence factors in Uganda. Makerere Business Journal, 13(2), 128-153.

Kaawaase, T. K., Assad, M. J., Kitindi, E. G., & Nkundabanyanga, S. K. (2016). Audit quality differences amongst audit firms in a developing economy: The case of Uganda. Journal of Accounting in Emerging Economies, 6(3), 269-290.

Kaawaase, T. K., Bananuka, J., Peter Kwizina, T., & Nabaweesi, J. (2020). Intellectual capital and performance of small and medium audit practices: The interactive effects of professionalism. Journal of Accounting in Emerging Economies, 10(2), 165-189.

Kaawaase, T. K., Nairuba, C., Akankunda, B., & Bananuka, J. (2021). Corporate governance, internal audit quality and financial reporting quality of financial institutions. Asian Journal of Accounting Research, 6(3), 348-366.

Khlif, H., & Samaha, K. (2014). Internal control quality, Egyptian standards on auditing and external audit delays: evidence from the E gyptian stock exchange. International Journal of Auditing, 18(2), 139-154.

Korutaro Nkundabanyanga, S., Tauringana, V., Balunywa, W., & Naigo Emitu, S. (2013). The association between accounting standards, legal framework and the quality of financial reporting by a government ministry in Uganda. Journal of Accounting in Emerging Economies, 3(1), 65-81.

Krosnick, J. A., & Fabrigar, L. R. (1997). Designing rating scales for effective measurement in surveys. Survey Measurement and Process Quality, 141-164.

Levis, J. (2006). Adoption of corporate social responsibility codes by multinational companies. Journal of Asian Economics, 17(1), 50-55.

Lin, C. J., Wang, T., & Pan, C. J. (2016). Financial reporting quality and investment decisions for family firms. Asia Pacific Journal of Management, 33, 499-532.

Madawaki, A., Ahmi, A., & Ahmad, H. N. (2022). Internal audit functions, financial reporting quality and moderating effect of senior management support. Meditari Accountancy Research, 30(2), 342-372.

Mansor, N., Che-Ahmad, A., Ahmad-Zaluki, N. A., & Osman, A. H. (2013). Corporate governance and earnings management: A study on the Malaysian family and non-family owned PLCs. Procedia Economics and Finance, 7, 221-229.

Mat Zain, M., Zaman, M., & Mohamed, Z. (2015). The effect of internal audit function quality and internal audit contribution to external audit on audit fees. International Journal of Auditing, 19(3), 134-147.

Mehrotra, A. N., & Yetman, J. (2015). Financial inclusion issues for central banks. BIS Quarterly Review March.

Mukyala, V., Bananuka, J., Basuuta, M., Tumwebaze, Z., & Bakalikwira, L. (2017). Accountability of local government authorities: A developing economy perspective.

Mundy, S. (2018). Financial Advisory Update. Financial Times, available at: www. ft. com/content/c1231f40-f695-11e7-88f7-5465a6ce1a00 (accessed 11 January 2018).

Munteanu, V., Copcinschi, L., Luschi, C., & Laceanu, A. (2016). Internal audit-determinanat factor in preventing and detecting fraud related activity to public entities financial accounting. Knowledge Horizons. Economics, 8(2), 14.

Nalukenge, I. (2020). Board role performance and compliance with IFRS disclosure requirements among microfinance institutions in Uganda. International Journal of Law and Management, 62(1), 47-66.

Nalukenge, I. (2020). Board role performance and compliance with IFRS disclosure requirements among microfinance institutions in Uganda. International Journal of Law and Management, 62(1), 47-66.

Nalukenge, I, Nkundabanyanga, S. K., & Ntayi, J. M. (2018). Corporate governance, ethics, internal controls and compliance with IFRS. Journal of Financial Reporting and Accounting, 16(4), 764-786.

Nalukenge, I., Tauringana, V., & Mpeera Ntayi, J. (2017). Corporate governance and internal controls over financial reporting in Ugandan MFIs. Journal of Accounting in Emerging Economies, 7(3), 294-317.

Nkundabanyanga, S. K., & Ahiauzu, A. (2012). Board role performance in Uganda's services sector firms.

Nkundabanyanga, S. K., & Ahiauzu, A. (2012). Board role performance in Uganda's services sector firms.

Ogoun, S., & Atagboro, E. (2020). Internal audit and creative accounting practices in ministries, departments and agencies (MDAS): an empirical analysis. Open Journal of Business and Management, 8(02), 552.

Oino, I. (2019). Do disclosure and transparency affect bank's financial performance? Corporate Governance: The International Journal of Business in Society, 19(6), 1344-1361.

Oussii, A. A., & Boulila Taktak, N. (2018). Audit committee effectiveness and financial reporting timeliness: The case of Tunisian listed companies. African Journal of Economic and Management Studies, 9(1), 34-55.

Oussii, A. A., & Boulila Taktak, N. (2018). The impact of internal audit function characteristics on internal control quality. Managerial Auditing Journal, 33(5), 450-469.

Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. MIS Quarterly, 115-143.

PwC (2018), "Pulling fraud out of the shadows: global economic Crime and fraud survey 2018", available at: https://www.pwc.com/gx/en/services/advisory/forensics/economic-crime-survey. htm l#cta-1 (accessed 14 February 2019).

Rakipi, R., De Santis, F., & D'Onza, G. (2021). Correlates of the internal audit function's use of data analytics in the big data era: Global evidence. Journal of International Accounting, Auditing and Taxation, 42, 100357.

Roussy, M., & Brivot, M. (2016). Internal audit quality: a polysemous notion? Accounting, Auditing & Accountability Journal, 29(5), 714-738.

Saleh, M. M. A., Jawabreh, O., & Abu-Eker, E. F. M. (2023). Factors of applying creative accounting and its impact on the quality of financial statements in Jordanian hotels, sustainable practices. Journal of Sustainable Finance & Investment, 13(1), 499-515.

Sarens, G., Abdolmohammadi, M. J., & Lenz, R. (2012). Factors associated with the internal audit function's role in corporate governance. Journal of Applied Accounting Research, 13(2), 191-204.

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In Handbook of market research (pp. 587-632). Cham: Springer International Publishing.

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. Pearson education.

Scarbrough, D. P., Rama, D. V., & Raghunandan, K. (1998). Audit Committee Composition and Interaction with Internal Auditing: Canadian Evidence. Accounting Horizons, 12(1).

SEC (2017), SEC Charges KPMG with Audit Failures, Press Release, available at: https://www.sec.gov/news/press-release/2017-142 (accessed 14 February 2019).

SEC (2019), "SEC charges Hertz with inaccurate financial reporting and other failures", available at:https://www.sec.gov/enforce/33-10601-s (accessed 14 February 2019).

Stewart, J., & Subramaniam, N. (2010). Internal audit independence and objectivity: emerging research opportunities. Managerial Auditing Journal, 25(4), 328-360.

Sultana, N., Singh, H., & Van der Zahn, J. L. M. (2015). Audit committee characteristics and audit report lag. International Journal of Auditing, 19(2), 72-87.

Sun, L. Y., Aryee, S., & Law, K. S. (2007). High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. Academy of Management Journal, 50(3), 558-577.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53.

Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. Procedia Economics and Finance, 20, 679-686.

Vadasi, C., Bekiaris, M., & Andrikopoulos, A. (2020). Corporate governance and internal audit: an institutional theory perspective. Corporate Governance: The International Journal of Business in Society, 20(1), 175-190.

Wulandari, A., & Machmuddah, Z. (2022). Peran komite audit dalam memoderasi konservatisme akuntansi terhadap creative accounting. Dinamika Akuntansi Keuangan Dan Perbankan, 11(1), 53-60.

Yi, M. Y., & Davis, F. D. (2003). Developing and validating an observational learning model of computer software training and skill acquisition. Information Systems Research, 14(2), 146-169.