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Does Internal Audit Quality Improve Firm Performance? The Moderating Effect of Chief Audit Executive Gender

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Abstract: This study aims to investigate the association between the quality of the Internal Audit Function (IAF) and firm performance and to examine whether the gender of the Chief Audit Executive (CAE) affects this relationship. Based on a sample of 75 Tunisian-listed companies from 2015 to 2019, the authors use GLS regression methods to analyze the data. The results show that internal audit quality has a positive and significant relationship with firm performance proxied by Tobin's Q. There is also evidence that the presence of a female CAE positively moderates the relationship between internal audit quality and firm performance. This study provides useful insights to regulatory authorities concerning the role of women in the internal audit function in improving the firm's financial performance. Our study is the first to examine the moderating effect of CAE gender on the relationship between internal audit quality and firm performance in the Tunisian context.

Keywords: *Gender, Internal audit, Firm performance, Tunisia.*

1. Introduction

Internal audit (IA) is an indispensable key in assisting organizations to reach their objectives. It is an independent, objective assurance and consulting activity designed to add value and improve the effectiveness of an organization's processes such as internal control, risk management, and governance (Gramling et al., 2004). Therefore, the quality of internal auditing is directly linked to the improvement of an organization's financial performance, playing a crucial role in protecting organizations from risks, combating corruption, safeguarding assets, checking compliance with organizational policy and instructions, and enhancing the reliability of financial reports (Subhi & Stanisic, 2016; Postula et al., 2020). In recent years, gender diversity has gained increased attention in the business environment. According to Eagly et al. (1995), most gender differences arise from the adoption of gender roles, which specify what the appropriate attitude is for men and women. Gender roles reflect social behavior and natural differences in skills and abilities between the sexes. In fact, women auditors are more inclined towards risk aversion and are more likely to critically evaluate information.

Further, women auditors use a cooperative decision-making approach to stimulate group collaboration (Ittonen et al., 2013; Post & Byron, 2015; Hardies & Khalifa, 2018). Numerous researchers have studied the impact of having women on the board of directors or in top management positions (Carter et al., 2003; Farrell & Hersch, 2005; Adams & Ferreira, 2009; Seierstad, 2016). However, the relationship between the chief audits executive's gender and firm performance has not yet been explored. The lack of research on internal audit gender and the importance of the internal audit function in corporate governance motivate the current study. Hence, the study's objectives are to explore the effect of the quality of IA on the financial performance of companies listed in Tunisia and to investigate the moderating role of heads of IA gender in this relationship. Based on a sample of 75 Tunisian-listed companies from 2015 to 2019, the current study uses GLS regression methods to analyze the data. Data were collected from two sources: a survey of 75 CAEs from Tunisian listed companies and financial information contained in the annual reports of the companies responding to the survey.

Our findings show that internal audit quality has a positive and significant relationship with firm performance proxied by Tobin's Q. Also, the presence of a female CAE positively moderates the relationship between internal audit quality and firm performance. Our research makes two notable contributions to the auditing literature. Firstly, it provides new insights that the presence of females in internal auditing seems to strengthen IAF quality. Secondly, findings emphasize the significance of female Chief Audit Executives (CAEs) in internal auditing and shed light on the positive outcomes they bring to the firm. Our findings also highlight

to regulatory authorities the importance of having women in the top positions in internal auditing to enhance the quality of their practices. Therefore, the gender difference in internal auditing should be more strongly emphasized in audit standards. The remainder of this paper is structured as follows: Section 2 presents the status and role of women in Tunisia. Section 3 presents the literature review and develops the hypotheses. Section 4 outlines the research methodology. Section 5 discusses the results, and finally, Section 6 concludes the paper.

Status and Role of Women in Tunisia: Tunisia is a pioneer for women in the Arab-Muslim world. From 1868, thinkers such as Kheireddine Pasha, Abdelaziz Thaalbi, and Tahar Haddad had begun to reflect on the reforms of the social policy in force, some oriented toward the valorization of women. On August 13, 1956, a few months after independence, the first president, Habib Bourguiba, promulgated the Personal Status Code (PSC), where equality between men and women, in all areas, was legally established. He abolishes polygamy, prohibits repudiation, institutes judicial divorce, and sets the minimum age of marriage at 17 for women. Since then, Tunisia has celebrated August 13 as National Women's Day. As a result, women invaded all areas and acceded to all positions, including those believed to be reserved for men only, such as security, the army, the air force, and the navy, to the point that the first Arabic pilot line is Tunisian. Bourguiba's successor, Zine El Abidine Ben Ali, has reinforced women's rights and political participation in municipal councils and Parliament.

He gave women the right to transmit her patronymic and her nationality to her children in the same way as her husband, even if she is married to a foreigner, on the sole condition that the father has given his approval. After the Tunisian revolution, the new Constitution of 2014 enshrined equality between men and women and introduced a goal of parity in elected assemblies. President Beji Caied Essebsi announced new measures on August 13, 2015, including equal pay for men and women in the industrial and agricultural sectors. In addition, it was decided to grant women legal guardianship of their minor children, and as of September 14, 2017, the ban against a Muslim woman from Tunisia marrying a non-Muslim was completely lifted. Since September 2021, Mrs. Najla Bouden has been the first woman to lead a government in Tunisia and the Arab world. Tunisian women occupy a distinguished place among the national priorities to develop their roles and empower them economically, politically, and socially.

2. Background and Hypotheses Development

Internal Audit Quality and Firm Performance: The Institute of Internal Auditors (IIA, 1999) defines internal audit as “an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.” According to the above definition, an internal audit provides a large variety of services and consultations to contribute to the achievement of company goals and increase financial and administrative performance. It is considered a useful tool aimed at examining the reliability and integrity of financial and operating information that comes from different organizational units, reviewing the regulatory policies employed to safeguard assets, and providing recommendations on risk management and control processes. Furthermore, internal auditing is regarded as an important component of an organization's corporate governance framework, as it involves the supervisory activities of the board of directors and audit committees to reduce agency costs and enhance corporate performance (Sarens & Abdolmohammadi, 2011). Indeed, improving the organization's performance can be made by a high-quality internal audit function composed essentially of competent and objective internal auditors.

Prior literature dedicated to examining the direct association between internal audit and firm performance is so limited. Among the few studies of this caliber, Hutchinson & Zain (2009) explored the relationship between internal audit quality (audit experience and accounting qualification) and firm performance (ROA) in 60 Malaysian companies. The results showed a significant positive relationship between internal audit experience and firm performance. In a related study, Deyganto (2019) revealed that independence of internal audit, competence of internal auditors, and management support positively affect the quality of internal audits while also enhancing the organizational performance of public sector bureaus in southern Ethiopia.

Along the same lines, many empirical studies have demonstrated that the quality of internal auditing is evaluated based on compliance with internal auditing standards, the competence and independence of internal auditors, as well as the size of the internal audit department. These factors have been shown to have beneficial effects on corporate financial performance (Kiabel, 2012- Nigeria; Ziaee, 2014- Iran; Alaswad & Stanisic, 2016- Libya; Chatiwong et al., 2016- Thailand; Alflahat, 2017- Jordan; Talab et al., 2018- Irak; Hazaea et al., 2020- Yemen; Bengrich & El Ghadouia, 2020- Morocco; Hazaea et al., 2021- Yemen).

Furthermore, Newman & Comfort (2018) conducted a study on 25 employees of African Sun Limited to investigate the potential value creation of IAF within an organization and its influence on financial performance. Findings revealed a positive association between IAF quality, measured by the size of the internal audit department, the competence and experience of internal auditors, and the organization's financial performance. The study highlighted the value added by IAF's assurance and advisory roles.

Additionally, Al-Matari & Mgammal (2019) investigated the moderating role of internal audit on the relationship between corporate governance mechanisms and the corporate performance of 47 firms listed in the Saudi stock market. The findings showed a positive and significant correlation between IAF and corporate performance. Moreover, Jiang et al. (2020) demonstrated that operations-related services provided by the IAF bring economic benefits to firms and improve operating performance. Along the same lines, Alzeban (2021) and Alsurayyi & Alsughayer (2021) indicated that the implementation of internal audit recommendations (a proxy for effective internal audit) enhances corporate governance and consequently leads to better firm performance in the context of Saudi Arabia. Despite the majority of studies highlighting the positive and significant association between internal audit quality and firm performance, the results of some previous research provide no evidence of this association (Ejoh & Ejom, 2014; Muchiri & Jagongo, 2017; Elewa & El-Haddad, 2019). Based on the existing literature regarding the relationship between internal audit quality and firm performance, we derived the following hypothesis:
Hypothesis 1: There is a positive association between IAF quality and firm performance.

The Moderating Effect of Internal Audit Gender Diversity: Of the various dimensions of diversity, gender is raising increasing interest, both as a biological and social construct, particularly with reference to gender-specific leadership styles and their explicit contribution to corporate governance (Helfat et al., 2006). Based on cognition and behavioral theory, women are more communal (e.g., gentle, empathetic, interpersonally sensitive, collaborative, etc.), and men are more agentic (e.g., rational, independent, aggressive, decisive, ambitious, competitive, etc.) (Eagly & Carli, 2003). Additionally, within the realm of business, women are argued to be conservative and risk-averse and to be more effective than their male counterparts concerning processing information, planning, monitoring, engaging in corporate social responsibility, and demonstrating impartiality in moral judgment (Nelson, 1996; Glass et al., 2016). The relationship between gender diversity and firm performance has therefore been investigated in several studies, especially as regards the board and the audit committee.

For instance, Kim & Starks (2016) provided evidence that the gender structure of the board of directors can enhance firm value and performance due to the valuable contributions made by female directors. First, female directors are more likely to appreciate diverse opinions, gather input from all board members, and adopt a cooperative decision-making approach to encourage teamwork among the group (Post & Byron, 2015). Second, they often bring different perspectives into board discussions, as they tend to ask more questions, provide higher levels of board accountability, and are better prepared for meetings (Adam & Ferreira, 2009). Finally, having women on boards increases creativity and innovation, as well as provides a strategic advantage in global competition (Robinson & Dechant, 1997). Indeed, several empirical studies have found that the presence of women on boards and audit committees has a positive effect on firm performance (Sabatier, 2015-France; Gordini & Rancati, 2017-Italy; Ahmadi et al., 2018-France; Ud Din et al., 2021-Pakistan; Brahma et al., 2021- UK). However, others have highlighted a negative relationship (Adams & Ferreira, 2009- US; Ahern & Dittmar, 2012-Norway; Soare et al., 2022-Belgium).

There have not been many studies conducted on female auditors. For example, Ittonen & Peni (2012) find evidence that companies with female audit engagement partners tend to incur notably higher audit fees, suggesting that the presence of female auditors could have a beneficial impact on audit quality. Their findings

are also supported by Rahim et al. (2022), who found that auditor gender moderates the impact of auditor independence and competence on audit quality. Nekhili et al. (2022) demonstrated that gender-diverse audit partners constrain unethical earnings management behavior in a French mandatory joint audit setting. Thus, Oussii & Klibi (2019) demonstrated that IAFs led by female Chief Internal Auditors in Tunisian listed companies tend to be more effective than those led by male Chief Internal Auditors. In summary, most studies have demonstrated that gender differences affect the quality of financial reporting and auditing, as well as firm performance; however, no prior research has specifically investigated the potential impact of internal audit gender on firm performance. Therefore, this study expands upon this line of research and explores whether the presence of female internal auditors affects the firm's performance. Thus, we hypothesize that:
Hypothesis 2: Internal audit gender diversity moderates the relationship between IAF and firm performance.

3. Research Design

Sample Selection and Data Collection: Our initial sample included 80 Tunisian companies that were listed on the Tunis Stock Exchange (TSE) between 2015 and 2019. We manually collected the data for this study from financial reporting and the "Stock Guide" published by TSE. Thus, data related to the IA functions, CAE gender, and other governance attributes were collected from a survey questionnaire sent to Chief Internal Auditors (CIAs) pertaining to 80 Tunisian firms listed on TSE. Between January 2020 and April 2020, we received 75 usable responses, giving a response rate of 93.75 percent. So, the final sample contains 75 listed companies and 375 yearly observations. Panel B in Table 1 presents the sector classifications of the sample, from which it is seen that above 33 percent of firms in our sample belong to the industrial sector and almost 30 percent of firms are in the financial services sector. Just over 10 percent of companies are in the telecommunications sector, and few firms (less than 5 percent) are in the energy, health care, and construction sectors.

Table 1: Sample Selection and Industry Breakdown

Panel A. Sample Selection		
Initial sample		80
Less: Firms deleted because of nonresponses to the survey		(5)
Final sample		75
Study duration		5
Total observations		375
Panel B. Sample distribution across the industry	**N**	**%**
Industrials	25	33.33
Distributors	6	8
Oil and gas	3	4
Health care	3	4
Construction and building	3	4
Telecommunication services	8	10.66
Transport	5	6.66
Financial services	22	29.33
Total	75	100

Research Model and Variables Definition: To test empirically the association between internal audit quality and firm performance specified in our first hypothesis, we use the following GLS regression model:

$$TQ_{it} = \beta_0 + \beta_1 IAFQ_{it} + \beta_2 FSIZE_{it} + \beta_3 FAGE_{it} + \beta_4 FIND_{it} + \beta_5 BIG4_{it} + \beta_6 BIND_{it} + \beta_7 ACEXP_{it} + \varepsilon_{it} \quad (1)$$

Moreover, this study examines the moderating effect of internal audit gender diversity on the relationship between IAF quality and the firm's financial performance by using the following GLS regression model:

$$TQ_{it} = \beta_0 + \beta_1 IAFQ_{it} + \beta_2 FCAE_{it} + \beta_3 (FCAE_{it} * IAFQ_{it}) + \beta_4 FSIZE_{it} + \beta_5 FAGE_{it} + \beta_6 FIND_{it} + \beta_7 BIG4_{it} + \beta_8 BIND_{it} + \beta_9 ACEXP_{it} + \varepsilon_{it} \quad (2)$$

Table 2 below summarises all variables used in the models above:

Table 2: Variables Measures

Variable	Symbols	Definition	Authors
Dependent Variable:			
Firm performance	TQ	Tobin's Q = (Market Value of Equity + Book Value of Debt)/Total Assets.	Chung & Pruitt (1994)
Independent variables:			
Internal audit quality	IAFQ	A single composite number measuring the quality of the IAF. The variable can range from 0 to 6 with 0 representing the lowest quality and 6 representing the highest quality. The score is formed by assigning a value of 1 to scores above the median for *Experience, Certification, Training, Objectivity, IASize,* and *FieldworkQA,* and summing them together.	Prawitt et al. (2009) Pizzini et al. (2015) Abidin (2021) Vadasi et al. (2021)
	Experience	Average number of years of internal audit experience.	
	Certification	The percentage of internal auditors who have the CIA or CPA certification.	
	Training	The average number of training hours per internal auditor during the year.	
	Objectivity	Dummy variable equals one if the CAE reports functionally to the audit committee, and 0 if not.	
	IASize	Number of internal auditors in the staff.	
	FieldworkQA	Dummy variable that equals 1 if the firm's IAF has a formal quality assurance program and 0 if otherwise.	
Gender diversity	FCAE	Dummy variable is equal to 1 if the CAE is female, and 0 if not.	Oussii & Klibi (2019)
	FCAE × IAFQ	Interaction term between gender diversity and IAF quality	
Firm size	FSIZE	Natural logarithm of total assets.	Haniff & Hudaib (2006) Richardson et al. (2013)
Firm age	FAGE	The number of years since the company was founded.	Qian & Li (2003)
Firm's industrial sector	FIND	Dummy variable is equal to 1 if the firm is in the financial industry and 0 otherwise.	Oussii & Klibi (2019)
Audit quality	BIG4	Dummy variable is equal to 1 if the firm has a Big4 auditor and 0 otherwise.	Davidson et al. (2005) Ifurueze et al. (2022)
Board independence	BIND	Percentage of independent directors.	Abdul Rahman & Mohamed Ali (2006) Liu et al. (2014) Qian et al. (2019)
Financial expertise on the audit committee	ACEXP	Percentage of accounting and financial experts on the audit committee.	Oussii & Klibi (2019)

4. Results

Descriptive Statistics and Correlations: Table 3 reports the descriptive statistics of the variables used in this study. It shows that the average value of Tobin's Q is 10.31, greater than 1, which means that the firm is worth more than the cost of its assets. Our IAF quality composite score is formed from the sum of six variables: Experience, Certification, Training, Objectivity, IA size, and Formal quality assurance program. Following Prawitt et al. (2009) approach, each variable is standardized, and the IAF quality score is then calculated by taking the sum of the six variables mentioned above. This variable has an average score of 2.14, which ranges from 0 to 5. This result refers to an adequate quality of IAF in the sampled firms. The findings also reveal that 28 percent of the CAEs in our sample are female. Early 81 percent of audit committee members are financial experts and the board is characterized by a mean proportion of independent directors of 23.21 percent. Regarding the firms' characteristics, the descriptive statistics reveal that the mean natural log of the sample firms is 18.26, corresponding to around TND 49 million. Additionally, companies in the finance sector constitute approximately 31 percent of the study's sample. The average age of our sample firms is 40 years. Almost 41 percent of Tunisian listed firms are audited by one of the four largest international audit firms.

Table 3: Descriptive Statistics

Variable	Mean	SD	Minimum	Maximum
TQ	10.3146	13.7653	0.0013	58.1432
IAFQ	2.1466	1.4959	0	5
FSIZE	18.2651	1.6904	13.7573	22.0244
FAGE	40.7733	24.3210	8	167
BIND	0.2321	0.1529	0	6
ACEXP	0.8159	0.1543	0.5833	1
Frequency	0		1	
FCAE	270 (72%)		105 (28%)	
FIND	260 (69.33%)		115 (30.67%)	
BIG4	222 (59.2%)		153 (40.8%)	

The Pearson correlation values reported in Table 4 show that firm performance (TQ) is positively and significantly correlated to the internal audit quality (IAFQ), the firm's age (FAGE), the firm's industrial sector (FIND), and the financial expertise on the audit committee (ACEXP). Furthermore, we observed a significant negative correlation between the dependent variable and variables such as firm size (FSIZE), gender diversity (FCAE), and board independence (BIND). The table shows that there are no signs of a multicollinearity problem because none of the variables correlates over 0.8. Gujarati and Porter (2009) recommend 0.8 at the start at which multicollinearity concerns may hurt the regression analysis. The results of the variance inflation factor (VIF) test have confirmed that the highest VIF is 2.41, which is well below the recommended threshold (Gujarati, 2004).

Table 4: Correlation Matrix

Variables	TQ	IAFQ	FCAE	FSIZE	FAGE	FIND	BIG4	ACEXP	BIND
TQ	1								
IAFQ	0.4627***	1							
FCAE	-0.1000*	0.0620	1						
FSIZE	-0.4988***	-0.1094**	0.1722***	1					
FAGE	0.4587***	0.2530***	-0.0296	-0.1970****	1				
FIND	0.4530***	0.6122***	0.2808***	-0.1074**	0.1693***	1			
BIG4	0.0393	0.2091***	0.0624	0.0522	0.1087**	0.0009	1		
ACEXP	0.1313**	0.5167***	0.2628***	0.1315**	0.1000*	0.6376***	0.1620****	1	
BIND	-0.1001*	-0.0566	0.0453	0.2093***	-0.0521	-0.0982*	0.0720	0.0322	1
VIF		1.89	1.18	1.20	1.11	2.41	1.12	1.98	1.06

Notes: *. **. *** Denote significance levels of 10%, 5%, 1%, respectively

Multivariate Analysis: Table 5 shows the results of the GLS regressions. Model 1 and Model 2 are both significant at p <0.01 with an adjusted R^2 of 0.561 and 582, respectively. Model 1 in Table 5 demonstrates a significant and positive association between IAFQ and TQ (p<0.05). This result supports our first hypothesis, implying that internal audit quality enhances firm performance. This outcome is consistent with the findings of several prior studies (Hutchinson & Zain, 2009; Alflahat, 2017; Bengrich & El Ghadouia, 2020; Alsurayyi & Alsughayer, 2021). The results of model 2 show that internal audit gender moderation with internal audit quality (FCAE*IAFQ) has a positive and significant effect on firm performance (TQ) at the 1% level, implying that the presence of female CAE moderates with the IAF to strengthen Tunisian listed companies' financial performance.

Hence, our second hypothesis is supported. With respect to the control variables, the results show that the association between firm size (FSIZE) and firm performance (TQ) is significantly negative. This result is not consistent with previous studies (Core et al., 2006; Jiang et al., 2020; Alzeban, 2021). The results also indicate that companies operating in the financial services sector (FIND) are more likely to have better financial performance. Moreover, findings reveal a positive and significant relationship between firm age (FAGE) and the firm's financial performance (TQ). This result is consistent with our expectations. According to the results, the regression coefficients of BIG4, ACEXP, and BIND were not statistically significant, indicating that firm performance is not affected by audit quality, the percentage of accounting and financial experts on the audit committee, or board independence.

Table 5: Regression Results

		Dependant variable: TQ			
		Model 1		**Model 2**	
Variables	**Sign expected**	**Coeff**	**P>Z**	**Coeff**	**P>Z**
IAFQ	+	299.2259	0.032**	327.6701	0.018**
FCAE	+	-	-	582.6	0.084*
FCAE *IAFQ	+	-	-	365.6247	0.006***
FSIZE	+	-340.8418	0.000***	-333.4438	0.000***
FAGE	+	25.9933	0.000***	25.4131	0.000***
FIND	+	1283.237	0.006***	1480.124	0.001***
BIG4	+	19.0822	0.872	-1.9627	0.987
ACEXP	+	-1036.869	0.241	-979.7685	0.262
BIND	+	115.9074	0.904	83.2275	0.930
Constant		5641.838	0.000***	5450.356	0.000
R^2		0.561***		0.582***	
N		375		375	

Notes: *. **. *** Denote significance levels of 10%, 5%, 1%, respectively.

5. Conclusion and Recommendations

This study extends the existing literature on gender diversity by examining how female CAEs play a moderating role between the internal audit quality and the financial performance of 80 Tunisian-listed firms from 2015 to 2019. In our analysis, we used Tobin's Q as a proxy for firm performance and found that the quality of internal audit functions had a positive and significant impact on financial performance. This finding is consistent with prior studies suggesting that higher-quality internal auditing improves firm performance (Sarens & Abdolmohammadi, 2011; Newman & Comfort, 2018; Al-Matari & Mgammal, 2019; Jiang et al., 2020; Alzeban, 2021). Our results also indicate that female heads of internal audit positively moderate the effect of IA quality on firm performance. This finding is in line with empirical evidence by Oussii & Klibi (2019) who found internal audit departments managed by women are more effective in the Tunisian context.

This study contributes to the existing literature on internal auditing and gender diversity by examining the link between the attributes of internal audit quality, the appointment of female Chief Audit Executives (CAEs), and firm performance in Tunisia. Moreover, the paper's findings carry significant implications for regulators

and policymakers, since the presence of female CAEs within internal audit departments could bring potential benefits, thereby leading to better corporate governance practices. Therefore, emphasizing the appointment of more females in the internal audit function is highly recommended.

The findings of our study suggest several potential areas for future research. It may be worthwhile to apply the same research framework to similar emerging markets to compare results. Additionally, future research could expand the sample size and utilize alternative measures to assess the quality of the IAF and the performance of the firm.

References

Abdul Rahman, R. & Mohamed Ali, F. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial Auditing Journal,* 21(7), 783-804.

Abidin, N. (2021). Internal audit quality and disclosure on risk management and internal control. *International Journal of Business, Economics and Management,* 8(3), 154-164.

Adams, R. & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics,* 94(2), 291-309.

Ahern, K. & Dittmar, A. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics,* 127(1), 137-197.

Ahmadi, A., Nakaa, N. & Bouri, A. (2018). Chief Executive Officer attributes board structures, gender diversity and firm performance among French CAC 40 listed firms. *Research in International Business and Finance,* 44, 218-226.

Alaswad, S. & Stanisic, M. (2016). Role of internal audit in performance of Libyan financial organizations. *International Journal of Applied Research*, 2(2), 352-356.

Alflahat, M. (2017). The impact of internal audit on organizational performance of selected Jordanian companies. *International Journal of Multidisciplinary Research and Development,* 4(8), 285-289.

Al-Matari, E. & Mgammal, M. (2019). The moderating effect of internal audit on the relationship between corporate governance mechanisms and corporate performance among Saudi Arabia listed companies. *Contaduria y Administracion,* 65(1), 1-36.

Alsurayyi, A. & Alsughayer, S. (2021). The relationship between corporate governance and firm performance: The effect of internal audit and enterprise resource planning (ERP). *Open Journal of Accounting,* 10(2), 56-76.

Alzeban, A. (2021). Internal audit findings, audit committees, and firm performance evidence from the UK. Asia-Pacific Journal of Accounting and Economics. doi:10.1080/16081625.2021.1908153

Bengrich, M. & El Ghadouia, M. (2020). Etude de l'influence de l'audit interne sur la performance globale des entreprises de la région Souss Massa. *Revue Internationale du Chercheur,* 1(2), 98-116.

Brahma, S., Nwafor, C. & Boateng, A. (2021). Board gender diversity and firm performance: The UK evidence. *International Journal of Finance and Economics,* 26(4), 5704-5719.

Carter, D., Simkins, B. & Simpson, W. (2003). Corporate Governance, Board Diversity, and Firm Value. *The Financial Review,* 38(1), 33-53.

Chatiwong, T., Ussahawanitichakit, P. & Janjarasjit, S. (2016). Proactive internal audit strategy and firm performance: Empirical evidence from Thai-listed firms. *AU-GSB e Journal,* 9(1), 3-24.

Chung, K. & Pruitt, S. (1994). A simple approximation of Tobin's Q. *Financial Management,* 23(3), 70-74.

Core, J., Guay, W. & Rusticus, T. (2006). Does weak governance cause weak stock returns? An examination of firm operating performance and investor's expectations. *The Journal of Finance, 61*(2), 655-687.

Davidson, R., Goodwin-Stewart, J. & Kent, P. (2005). Internal governance structures and earnings management. *Accounting and Finance,* 45(2), 241-267.

Deyganto, K. (2019). Internal audit quality and its impact on public sector organizational performance: Evidence from sector Bureaus of Southern Ethiopia. *International Journal of Economy, Energy and Environment,* 4(6), 118-131.

Eagly, A. & Carli, L. (2003). Finding gender advantage and disadvantage: Systematic research integration is the solution. *The Leadership Quarterly,* 14(6), 851-859.

Eagly, A., Karau, S. & Makhijani, M. (1995). Gender and the effectiveness of leaders: Ameta-analysis. *Psychological Bulletin,* 117(1), 125-145.

Ejoh, N. & Ejom, P. (2014). The effect of internal audit function on the financial performance of tertiary institutions in Nigeria. *International Journal of Economics, Commerce and Management,* 2(10), 1-14.

Elewa, M. & El-Haddad, R. (2019). The effect of audit quality on firm performance: A panel data approach. *International Journal of Accounting and Financial Reporting,* 9(1), 229-244.

Farrell, K. & Hersch, P. (2005). Additions to corporate boards: The effect of gender. *Journal of Corporate Finance,* 11(1/2), 85-106.

Glass, C., Cook, A. & Ingersoll, A. (2016). Do women leaders promote sustainability? Analyzing the effect of corporate governance composition on. *Business Strategy and the Environment*, 25(7), 495-511.

Gordini, N. & Rancati, E. (2017). Gender diversity in the Italian boardroom and firm financial performance. *Management Research Review,* 40(1), 75-94.

Gramling, A., Maletta, M., Arnold, S. & Church, B. (2004). The role of the internal audit function in corporate governance: A synthesis of the extant internal auditing literature and directions for future research. *Journal of Accounting Literature,* 23(1), 194-244.

Gujarati, N. (2004). Basic Econometrics. New York: The McGraw-Hill.Fourth Ed. Ltd.

Gujarati, N. & Porter, D. (2009). Basic Econometrics. US: The McGraw-Hill. Third Ed. Ltd.

Haniffa, R. & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance and Accounting,* 33(7), 1034-1062.

Hardies, K. & Khalifa, R. (2018). Gender is not"a dummy variable": a discussion of current gender research in accounting. *Qualitative Research in Accounting and Management,* 15(3), 385-407.

Hazaea, S., Tabash, M., Khatib, S., Zhu, J. & Al-Khuali, A. (2020). The impact of internal audit quality on the financial performance of Yemeni commercial banks: An empirical investigation. *The Journal of Asian Finance, Economics and Business,* 7(11), 867-875.

Hazaea, S., Tabash, M., Zhu, J., Khatib, S. & Farhan, N. (2021). Internal audit and financial performance of Yemeni commercial banks: Empirical evidence. *Banks and Bank Systems,* 16(2), 137-147.

Helfat, C., Harris, D. & Wolfson, P. (2006). The pipeline to the top: Women and men in the top executive ranks of U.S corporations. *The Academy of Management Perspectives,* 20(4), 42-64.

Hutchinson, M. & Zain, M. (2009). Internal audit quality, audit committee independence, growth opportunities and firm performance. *Corporate Ownership and Control,* 7(2), 50-63.

Ifurueze, P., Anichebe, A. & Nkechi, M. (2022). Effect of audit firm size on the market performance of industrial goods companies in Nigeria. *Asian Journal of Advances in Research,* 17(4), 110-118.

IIA. (1999). Definition of Internal Auditing. The Institute of Internal Auditors, Altamonte Springs, FL.

Ittonen, K. & Peni, E. (2012). Auditor's gender and audit fees. *International Journal of Auditing,* 16(1), 1-18.

Ittonen, K., Vahamaa, E. & Vahamaa, S. (2013). Female auditors and accruals quality. *Accounting Horizon,* 27(2), 205-228.

Jiang, L., Messier, W. & Wood, D. (2020). The association between internal audit operations-related services and firm operating performance. *Auditing: A journal of practice and Theory,* 39(1), 101-124.

Kiabel, B. (2012). Internal auditing and performance of government enterprises: A Nigerian study. *Global Journal of Management and Business Research,* 12(6), 1-17.

Kim, D. & Starks, L. (2016). Gender diversity on corporate boards: Do women contribute unique skills? *American Economic Review,* 106(5), 267-271.

Liu, Y., Wei, Z. & Xie, F. (2014). Do women directors improve firm performance in China? *Journal of Corporate Finance,* 28(C), 169-184.

Muchiri, N. & Jagongo, A. (2017). Internal auditing and financial performance of public institutions in Kenya: A case study of Kenya Meat Commission. *African Journal of Business Management,* 11(8), 168-174.

Nekhili, M., Javed, F. & Nagati, H. (2022). Audit partner gender, leadership and ethics: The case of earnings management. *Journal of Business Ethics,* 177, 233-260.

Nelson, J. (1996). Feminism, Objectivity 0and Economics. Routledge, London.

Newman, W. & Comfort, M. (2018). Investigating the value creation of internal audit and its impact on company performance. *Academy of Entrepreneurship Journal,* 24(3), 1-21.

Oussii, A. & Klibi, M. (2019). Does the chief audit executive gender matter to internal audit effectiveness? Evidence from Tunisia. *African Journal of Economic and Management Studies,* 10(4), 424-439.

Pizzini, M., Lin, S., Vargus, M. & Ziegenfuss, D. (2015). The impact of internal audit function quality and contribution on audit delays. *Auditing: A Journal of Practice and Theory,* 34(1), 25-58.

Post, C. & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. *Academy of Management Journal,* 58(5), 1546-1571.

Postula, M., Irodenko, O. & Dubel, P. (2020). Internal audit as a tool to improve the efficiency of public service. *European Research Studies Journal,* (3), 699-715.

Prawitt, D., Smith, J. & Wood, D. (2009). Internal audit quality and earnings management. *The Accounting Review,* 84(4), 1255-1280.

Qian, G. & Li, L. (2003). Profitability of small and medium-sized enterprises in high tech industries: The case of the biotechnology industry. *Strategic Management Journal,* 24(9), 881-887.

Qian, L., Norazlin, A., Irene, W., Cheng, Z. & Hasahudin, B. (2019). Board gender diversity, board independence and firm performance in Malaysia. *Institutions and Economies,* 11(1), 1-20.

Rahim, S., Wahyuni, N., Anzhari, A. & Karim, A. (2022). Determination of audit quality: auditor gender stereotype study in South Sulawesi, Indonesia. *Journal of Positive Schook Psychology,* 6(11), 569-586.

Richardson, G., Taylor, G. & Lanis, R. (2013). Determinants of transfer pricing aggressiveness: Empirical evidence from Australian firms. *Journal of Contemporary Accounting and Economics,* 9(2), 136-150.

Robinson, G. & Dechant. (1997). Building a business case for diversity. *Academy of Management Executive,* 11(3), 21-31.

Sabatier, M. (2015). A women's boom in the boardroom: Effects on performance? *Applied Economics,* 47(26), 2717-2727.

Sarens, G. & Abdolmohammdi, M. (2011). Monitoring effects of the internal audit function: agency theory versus other explanatory variables. *International Journal of Auditing,* 15(1), 1-20.

Seierstad, C. (2016). Beyond the business case: The need for both utility and justice rationales for increasing the share of women on boards. *Corporate Governance,* 24(4), 390-405.

Soare, T., Detilleux, C. & Deschacht, N. (2022). The impact of the gender composition of company boards on firm performance. *International Journal of Productivity and Performance Management,* 71(5), 1611-1624.

Subhi, A. & Stanisic, M. (2016). Role of internal audit in performance of Libyan financial organizations. *International Journal of Applied Research,* 2(2), 352-356.

Talab, H., Abdul Manaf, K. & Siti Seri, D. (2018). Internal audit function, ownership structure and firm performance in Iraq. *Journal of Engineering and Applied Sciences,* 13(8), 2098-2102.

Ud Din, N., Cheng, X., Ahmad, B. & Sheikh, M. (2021). Gender diversity in the audit committee and the efficiency of internal control and financial reporting quality. *Economic Research,* 34(1), 1170-1189.

Vadasi, C., Bekiars, M. & Andrikopoulos, A. (2021). Internal audit function quality and corporate governance: The case of Greece. *Multinational Finance Journal,* 25(1/2), 1-61.

Ziaee, M. (2014). The effect of audit quality on the performance of listed companies in the Tehran stock exchange. *International Letters of Social and Humanistic Sciences,* 21, 36-43.