



Do BIG-4 auditors perform a corporate governance role in the Moroccan context? Evidence from accounting and market-based performance measures

Nasredine Fathelkhir, Said Karam, Othman Gaga

► To cite this version:

Nasredine Fathelkhir, Said Karam, Othman Gaga. Do BIG-4 auditors perform a corporate governance role in the Moroccan context? Evidence from accounting and market-based performance measures. *African Scientific Journal*, 2024, 3 (26), pp.767-792. <10.5281/zenodo.14025066>. <hal-04803149>

HAL Id: hal-04803149

<https://hal.science/hal-04803149v1>

Submitted on 25 Nov 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Do BIG-4 auditors perform a corporate governance role in the Moroccan context? Evidence from accounting and market-based performance measures.

Auteur 1 : FATHELKHIR Nasredine.

Auteur 2 : KARAM Said.

Auteur 3 : GAGA Othman.

FATHELKHIR Nasredine, (PhD Student)

Hassan First University of Settat, Morocco

Faculty of Economics and Management

Laboratory of Research in Management and Development (LRMD)

KARAM Said, (Associate Professor)

Hassan First University of Settat, Morocco

Faculty of Economics and Management

Laboratory of Research in Management and Development (LRMD)

GAGA Othman, (PhD Student)

Hassan First University of Settat, Morocco

Faculty of Economics and Management

Laboratory of Research in Management and Development (LRMD)

Déclaration de divulgation : L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

Conflit d'intérêts : L'auteur ne signale aucun conflit d'intérêts.

Pour citer cet article : FATHELKHIR .N, KARAM .S & GAGA .O (2024) « Do BIG-4 auditors perform a corporate governance role in the Moroccan context? Evidence from accounting and market-based performance measures », African Scientific Journal « Volume 03, Numéro 26 » pp: 0767– 0792.

Date de soumission : Septembre 2024

Date de publication : Octobre 2024



DOI : 10.5281/zenodo.14025066

Copyright © 2024 – ASJ



Abstract

The research on external audit quality has attracted flourishing interest from several scholars following financial scandals and corporate failures, Nonetheless, results and empirical findings regarding the effect of audit quality on firm performance are still inconclusive. Our study is designed to investigate the impact of external audit quality on financial performance using both accounting and market-based performance indicators. Based on a sample of 38 listed firms in the Casablanca stock exchange, covering the period 2011-2021, this study employed a pooled OLS model to assess the effect of audit quality on accounting and market-based performance measures. For robustness check, we employed the Feasible Generalized Least Square (FGLS) estimator to account for potential issues of heteroskedasticity and autocorrelation. Our findings support the main hypothesis and the agency's theoretical foundations, indicating that audit brand name reputation and audit quality change exhibit significant positive impacts on financial performance and firm valuation. To the best of our knowledge, our study is the first to examine the effect of audit quality on firm performance and valuation in the Moroccan context and use audit quality change as a robustness proxy for audit quality. Nevertheless, our research suffers from some limitations, related to the methodological approach, possible omissions of some variables, econometric issues related to endogeneity concerns and external validity of our results due to the limited number of observations.

Keywords: Corporate governance, External audit quality, Firm performance, Agency theory, Morocco.

Introduction

Research on the relationship between corporate governance mechanisms and firm performance has garnered considerable attention from multiple researchers. Most studies have focused on internal governance mechanisms, such as ownership structure, board of directors' attributes and audit committee characteristics (Detthamrong et al., 2017; Jermias & Gani, 2014; Mollah et al., 2012; Zhou et al., 2018), however, research on external audit quality is still limited in emerging markets (Alfraih, 2016). The firm is considered a deep black box where relationships and interests between managers and shareholders tend to be complex and divergent, as a consequence, firms need to establish a set of internal and external governance mechanisms to deter the discretionary power of managers and limit the probability of corporate bankruptcy and fraud (Jhunjhunwala & Bavirishetty, 2009). External auditors are perceived as gatekeepers and the crux of the corporate governance system through their capability and skills to detect anomalies, material weaknesses and monitor the application of accounting choices and standards (Coates, 2007; J. R. Francis, 2023). Drawing from different theoretical backgrounds, starting by the agency theory, audit quality is considered an effective governance mechanism that aligns interests between different shareholders, an oversight monitoring mechanism to reduce opportunistic behavior and testify the correctness of financial reporting or malfeasance from managers (Jensen, 1986). On the other hand, external auditors enforce managers to respond to other stakeholders' interests, by increasing corporate risk disclosures and detecting internal control weaknesses, in other words, external auditors constitute a crucial oversight mechanism to discipline and monitor the manager's contracts (Coates, 2007; Watts & Zimmerman, 1983). Audit quality is defined as the probability that an auditor can detect anomalies, misconducts, and discover a breach, violation or material misstatements in the accounting information produced by managers (DeAngelo, 1981; Tran et al., 2019). Furthermore, the stakeholders' theory extends the debate on the role of audit quality; its function is not restricted only on the contractual relationship between managers and shareholders, but connects a wide range of neglected stakeholders, in this regard, the quality of audit services gives insurance to other stakeholders, increase their confidence towards corporates' financial reporting and reduce the information asymmetry, as a consequence, stakeholders can make accurate decisions based on reliable information (Manita et al., 2020). Moreover, the literature on audit quality points out that large auditors have more resources and high technology compared to small auditing firms (Husnin et al., 2016), as a consequence, high auditing firms can face and bear the managerial pressure and act as an independent monitoring

device for stakeholders (Piot & Janin, 2007). In spite of what has been mentioned, there is no consensus on the results and empirical findings regarding the effect of audit firm size (Al-Ajmi, 2009). Our study aims to test the effect of audit quality, precisely audit firm size on financial performance. Our research design is based on positivism, a paradigm that isolates the researcher from personal values, satisfying the main criteria of objectivity and independence, following a hypothetico-deductive reasoning (Walliman, 2016; Žukauskas et al., 2018). The structure of our study is presented as follows: first of all, we will present the empirical relevant literature linking audit quality to firm performance and formulate our hypothesis. Next, we briefly describe the regression model specification, sampling, data collection and definitions of the variables. Then, we will present, interpret and discuss our findings. Finally, we conclude the study by presenting its limitations and future research avenues.

1. Literature review and hypothesis development:

Our research aims to investigate the theoretical underpinning of audit quality and firm performance. External auditors are perceived as an effective governance mechanism that has incentives for reducing agency costs between shareholders and managers, a monitoring device used to reduce the bonding costs, guarantee the accuracy, detect misleading information, minimize fraud actions and ensure financial statements' sincerity (Jensen & Meckling, 1976). A first strand of literature confirms that audit quality tends to impact financial performance, firm valuation and value creation significantly. Drawing from an agency perspective, auditors through their competence, reputation and skills are considered as a supervisory mechanism that guarantees the credibility of financial reports, attenuates opportunistic management behavior, detects internal control weaknesses and constrains earnings management practices (El Mir & Seboui, 2008). Other studies have tackled the literature gap by examining the effect of audit quality on firm's earnings management practices, cost of equity and financial reporting quality (Alves, 2013; Le & Moore, 2023). The information asymmetry between managers and shareholders suggests the request and the demand of external auditors as a robust device for controlling deviated and deleterious management decisions (Alzoubi, 2016). Using different empirical proxies of audit quality, the results assess that auditor tenure and specializations have a significant negative impact on the magnitude of accounting manipulation using discretionary accruals as a proxy (Houmes et al., 2013). The role of audit quality is not limited to providing high audit services only, through their specific knowledge, high technology, professional skepticism and their competence but also an oversight mechanism that assures investors about the strategic decisions made by management. Since auditors are concerned about preserving

and protecting their reputation and independence, managers are very cautious regarding firms' capital expenditures, the reasons why audit quality can be viewed as a crucial monitoring tool that impacts the strategic innovative decisions by managers, as a consequence, firm's performance and future market valuation increase upward (Boubaker et al., 2018; Mahrani & Soewarno, 2018). Prior studies have documented robust results indicating that the role of BIG-4 auditing firms is multidimensional, it can help detect anomalies, foster firm valuation (Buachoom, 2018), increase investors' confidence towards financial reporting quality and reinforce the corporate governance system by affecting corporate voluntary disclosures as a response to other stakeholders' interests (Dakhli, 2022). Another strand of literature casts light on the relationship between demanding high audit quality and investment efficiency, the results of different studies have relied excessively on measuring audit quality by audit firm size following the famous work of (DeAngelo, 1981). Using a panel data approach for 125 French-listed firms over eight years, the results confirm that audit quality exhibits a significant positive impact on investment efficiency, thereby, auditor brand reputation and industry specializations are associated with efficient investment compared to firms with Non-BIG-4 auditors (Boubaker et al., 2018). An enormous number of studies confirms the main hypothesis that audit brand name reputation is associated with firms having high investment opportunities and organizational market valuation using Tobin's Q as a proxy (Al Farooque et al., 2019; Al-Ahdal et al., 2023; Alfraih, 2016; Asghar et al., 2020; Boshnak, 2023; Conheady et al., 2015; Diab et al., 2024; Jaffar & Abdul-Shukor, 2016; Jermias & Gani, 2014; Kalita & Tiwari, 2023; Meah et al., 2021; Mohapatra & Pattanayak, 2024; Nazir & Afza, 2018; Ntim, 2015; Sarhan et al., 2019; Sarker & Hossain, 2023; Shan, 2019; Singla & Singh, 2019). In a similar vein, (Rompotis & Balios, 2023) have examined the effect of audit quality on firm performance and firm risk, for 75 companies listed in the Athens stock exchange covering 4 years. Using panel data techniques and relying on seven different proxies of corporate performance and firm risk, the authors' results confirm and meet the hypothesis expectations, in other words, audit firm size enhances firm performance and exhibits a negative effect on corporate risk-taking. Based on manufacturing firms in Pakistan as a sample for investigation, this study has explored the link between audit quality and firm performance, two proxies computed the dependent variable; sustainability in growth rate and return on assets. To deal with potential endogeneity concerns, the authors used the dynamic panel data approach (GMM) and the empirical outcomes provide convincing evidence that auditor experience and audit pricing are determinants of corporate performance (Sattar et al., 2020). To address the literature gap in emerging countries, a model

was developed by (Al-ahdal & Hashim, 2022) to test the hypothesis that connects audit committee attributes and external audit quality to firm performance in the Indian context. Unlike prior studies, the authors utilize a different proxy by computing audit quality as an index composed of 10 items, inspired by the implementation of the Companies Act law of Indian firms. The study adds valuable knowledge to the literature on audit quality, however, it fails to provide strong evidence and robust results supporting and defending our main hypothesis (Al-ahdal & Hashim, 2022). Large well-known audit firms' main objective is to protect their reputation and independence, in this regard, the competence of profile members, knowledge of audit practices and processes, gives insurance to stakeholders about the reliability and transparency of financial statements, responding to international high-quality auditing and reporting standards, as a result, corporate reputation, firm valuation and investors' confidence increase (Zahid et al., 2022). Furthermore, external auditors constitute the most valuable control mechanism of the external corporate governance system, audit quality is perceived as a signal of legitimacy and trustworthiness, in this vein, auditors help the board members and managers by establishing a strong internal control system with accurate information facilitating the decision-making process (Hewa Wellalagea et al., 2023). In contrast to previous empirical findings, a considerable number of studies have failed to record a strong linkage between audit firm size and financial performance, precisely studies using accounting-based performance measures (Aljifri & Moustafa, 2007; Alkurdi et al., 2021; Alodat et al., 2023; Bakri, 2021; Bhuiyan et al., 2020; Boshnak, 2023; Elamer & Benyazid, 2018; Ferraz et al., 2018; Kamaludin et al., 2023; Nag & Chatterjee, 2020; Nguyen & Nguyen, 2024, 2024; Sri & Solimun, 2019; Zhou et al., 2018).

Based on the preceding theoretical foundations and empirical literature findings, we present our research hypothesis:

Hypothesis 1: External audit quality has a significant positive impact on financial performance and firm valuation.

H1 a: Audit firm size has a significant positive impact on financial performance and firm valuation.

H1 b: Audit quality change has a significant positive impact on financial performance and firm valuation.

2. Data and methodology:

2.1 Sample selection:

Our study began in 2011, following the 2008 financial crisis. The initial sample of our study consisted of all firms listed in the Casablanca Stock Exchange. Due to specific accounting standards, reporting and regulations, firms belonging to the banking sector were excluded from our sample, also companies with missing data on variables or not satisfying the criteria of being listed during the whole period were eliminated. Our final usable balanced data consisted of 38 firms, with a total of 418 observations covering the period of 2011-2021. Our study relies on two main sources of data: financial statements and annual reports, based on the Casablanca Stock Exchange (BVC) and the Moroccan Authority of Capital Market (AMMC) websites.

2.2 Model specification and variable measurements:

This study adopts a pooled OLS model with the Newey-West (NWS) robust standard errors to deal with heteroscedasticity and autocorrelation problems (Alfraih, 2016; White, 1980). To explore the effect of audit quality on firm performance, we estimate our model by the following equations:

$$\text{Firm performance}_{it} = \beta_0 + \beta_1 \text{BIG4}_{it} + \sum_{j=1}^7 \beta_{jit} \text{Control}_{jit} + \text{YEAR}_t + \varepsilon_{it} \quad (1)$$

$$\text{Firm performance}_{it} = \gamma_0 + \gamma_1 \text{UPBIG}_{it} + \sum_{j=1}^7 \gamma_{jit} \text{Control}_{jit} + \text{YEAR}_t + \zeta_{it} \quad (2)$$

2.3 Variables measurements:

Dependent variable:

For our analysis, firm performance is measured by using both accounting-based measures (i.e. return on assets and return on equity) and market-based indicators (i.e. market to book ratio and Tobin's Q). The use of market-based performance measures is justified in literature by its power to capture relevant information and thus overcome the limitation of accounting-based performance proxies (Gentry & Shen, 2010). According to previous studies, **Return on assets** is the ratio of net income divided by the book value of total assets (Agyei-Mensah, 2018; Elamer & Benyazid, 2018; Ferraz et al., 2018; Zhou et al., 2018).

Return on equity is the ratio of net income scaled by the book value of equity (Abu Afifa et al., 2023; Al-ahdal & Hashim, 2022; Boshnak, 2023; Buallay et al., 2017; Elmashtawy et al.,

2023; Khan & Abdul Subhan, 2019; Mahrani & Soewarno, 2018). For market-based indicators, we calculate **Tobin's Q** as the sum of the market value of equity and total debt divided by the book value of total assets which is consistent with several studies (Al Farooque et al., 2019; Alkurdi et al., 2021; Badriyah et al., 2015; Dakhli, 2022; Jermias & Gani, 2014; Kalita & Tiwari, 2023, 2023). **The market-to-book** ratio is measured by the market value of equity scaled by the book value of equity (Kao et al., 2019; Vieira, 2018).

Independent variable:

Following prior literature, our independent variable "Audit quality" is defined as a dummy variable that equals one if the firm is audited by one of the "BIG-4" auditing firms (Deloitte, Price Waterhouse Coopers, Earnst and Young and KPMG) and zero otherwise (Abu Afifa et al., 2023; Agyemang-Mintah & Schadewitz, 2018; Alodat et al., 2023; Bakri, 2021; Boubaker et al., 2018; DeAngelo, 1981; Diab et al., 2024; Natalia & Isnalita, 2023; Nekhili & Cherif, 2009; Owusu & Weir, 2016; Rompotis & Balios, 2023; Saleh Aly et al., 2023; Sayed et al., 2024, 2024; Vintilă et al., 2015; Zahid et al., 2023).

Control variables:

To isolate the effect of audit quality and control for firm characteristics, we follow extant literature by incorporating several control variables that are supposed to influence firm performance. Firm size is defined as the natural logarithm of firm's total assets (Khan & Abdul Subhan, 2019; Sattar et al., 2020). Firm age is measured by the natural logarithm of the number of years since firm's incorporation (Kao et al., 2019; Meah et al., 2021). Liquidity stands for the ratio of current assets to current liabilities (Alkurdi et al., 2021; Boshnak, 2023). Leverage represents the ratio of total debt to total assets (Vintilă & Gherghina, 2014; Yun et al., 2021; Zahid et al., 2022). Dividend is a dummy variable taking the value of one if the firm paid ordinary dividend and zero otherwise (Ofori-Sasu et al., 2019). Furthermore, we included asset turnover ratio as a proxy of agency costs defined as the ratio of total sales to total assets (Ahmed et al., 2023; Rompotis & Balios, 2023; Sattar et al., 2020). Finally cash holdings is calculated as the ratio of cash and cash-equivalents to total assets (Hewa Wellalagea et al., 2023; Yun et al., 2021). Lastly, we control for year fixed effects.

Table I : Description of variables

Variable	Label	Definition
Dependent variable		
Financial performance		
Accounting-based performance measures	ROA-1	Operating income/ Total assets
	ROA-4	Net income/ Total assets
	ROE-1	Operating income/ Book value of equity
	ROE-4	Net income/ Book value of equity
Market-based performance measures	MTB	Market value of equity / Book value of equity
	TQ	(Market value of equity + book value of debt)/Book value of total assets
Independent variable		
Audit quality		
Audit firm size	BIG4	Dummy variable that equals one if the firm is audited by one of the “Big-4” auditing firm, and zero otherwise. Big 4 auditors include “Deloitte, PwC, EY and KPMG”
Audit quality change	UPBIG	Dummy variable that equals one if the firm switched from a Non-BIG4 to a BIG-4 auditor and zero otherwise.
Control variables		
Firm size	SIZE	Natural logarithm of firm’s total assets
Firm age	AGE	Natural logarithm of the number of years since firm’ incorporation
Liquidity	LIQ	Currents assets/ Current liabilities
Leverage	LEV	Total debt/ Total assets
Dividend	DIV	Dummy variable that equals one if the firm paid ordinary dividend and zero otherwise
Asset Turnover Ratio	ATR	Total sales/ Total assets
Cash-Holdings	CASH	Cash and cash equivalents/ Total assets

Source : Authors

3. Results and discussion :

3.1 Descriptive statistics

Table II : Descriptive statistics

Variables	Mean	SD	Min	Median	Max
ROA4	0,070	0,069	-0,134	0,064	0,280
ROE4	0,134	0,140	-0,319	0,126	0,530
MTB	2,809	2,104	0,328	2,358	10,448
TQ	1,845	1,014	0,461	1,656	5,731
BIG4	0,596	0,491	0,000	1,000	1,000
UPBIG	0,038	0,192	0,000	0,000	1,000
SIZE	7,333	1,391	4,855	7,171	10,630
AGE	3,773	0,527	2,600	3,757	4,617
LIQ	0,281	0,218	-0,241	0,311	0,742
LEV	0,445	0,173	0,099	0,473	0,786
DIV	0,775	0,418	0,000	1,000	1,000
ATR	0,750	0,446	0,025	0,700	1,881
CASH	0,044	0,052	0,000	0,023	0,236

Source : Authors

Table II reports the summary statistics of dependent, independent and control variables employed in the study for the full sample. All variables are defined in Table I. Starting with our dependent variable, **ROA4** of sample firms ranges from (-1,34) to (0,28) with a mean of 0,07. The mean (Median) values of **ROE4** are 0,13 (0,126). For market-based performance proxies, the maximum values of **MTB** and **TQ** are (10,44) and (5,73) respectively, **MTB** has the largest variation, with a mean of 2,80 and a standard deviation of 2,10 indicating that market-based performance measures (MTB-TQ) have more variability than accounting-based performance proxies (ROA4-ROE4). Concerning our main independent variable, 59,6% of our sample firms are audited by one of the **BIG-4** auditing firms, these results confirm the dominance of BIG-4 auditors in the Moroccan audit market. Concerning control variables, the variable (**Size**) indicates that our sample firms have on average a natural logarithm of total assets value of 7,33 and a maximum value of 10,63. The mean (median) values of liquidity (**LIQ**) are 0,28 (0,31). Furthermore, the average debt ratio (**LEV**) is 0,44 with a standard deviation of 0,17.

The statistics indicate that ordinary dividend (**DIV**) is distributed by 77,5 % of our sample firms. In addition, the mean value of asset turnover ratio (**ATR**) and cash-holdings (**CASH**) is 0,75 and 0,04, respectively. **Table III** and **Table IV** report the repression results for Equation (1), where we regress accounting and market-based performance measures on audit quality and other control variables of our model.

Table III: Pooled OLS regression results of accounting-based performance measures on audit quality and control variables

VARIABLES	(1) ROA1	(2) ROA4	(3) ROE1	(4) ROE4
BIG4	0.0459*** (0.0069)	0.0275*** (0.0055)	0.0894*** (0.0149)	0.0570*** (0.0122)
SIZE	-0.0048* (0.0027)	-0.0032 (0.0023)	-0.0120* (0.0066)	-0.0092* (0.0054)
AGE	-0.0176*** (0.0068)	-0.0115** (0.0056)	-0.0691*** (0.0134)	-0.0458*** (0.0114)
LIQ	-0.0538*** (0.0188)	-0.0353** (0.0156)	-0.2475*** (0.0401)	-0.1748*** (0.0327)
LEV	-0.1247*** (0.0188)	-0.1467*** (0.0174)	0.0038 (0.0365)	-0.0919*** (0.0323)
DIV	0.0732*** (0.0082)	0.0691*** (0.0072)	0.1537*** (0.0171)	0.1519*** (0.0144)
ATR	0.0474*** (0.0084)	0.0142** (0.0060)	0.0775*** (0.0180)	0.0230* (0.0133)
CASH	0.1651** (0.0699)	0.1511*** (0.0467)	0.4382*** (0.1633)	0.3550*** (0.1176)
Constant	0.1374*** (0.0351)	0.1260*** (0.0329)	0.3606*** (0.0757)	0.2888*** (0.0675)
Observations	418	418	418	418
R-squared	0.4125	0.4327	0.4495	0.4408
Adjusted R-squared	0.3876	0.4086	0.4261	0.4171
F-stat	23.9843***	20.2243***	18.5686***	14.2510***
Years FE	Yes	Yes	Yes	Yes

Note (s): *, **, *** denote the statistical significance at 10%, 5% and 1%, respectively. Robust standard errors in parentheses.
Source: Authors' estimation results

Table IV: Pooled OLS Regression results of market-based performance measures on audit quality and control variables

VARIABLES	(1) TQ	(2) MTB
BIG4	0.4083*** (0.0816)	0.8964*** (0.1822)
SIZE	0.1147*** (0.0345)	0.2376*** (0.0733)
AGE	0.1098 (0.0901)	-0.2508 (0.1757)
LIQ	-0.8490*** (0.2311)	-3.1012*** (0.4412)
LEV	-1.3429*** (0.2504)	-0.0409 (0.4619)
DIV	0.6097*** (0.1009)	1.1455*** (0.2072)
ATR	0.1984** (0.0922)	0.3449* (0.1884)
CASH	0.7386 (0.7329)	2.5431 (1.6316)
Constant	0.7666* (0.4360)	1.6371* (0.9071)
Observations	418	418
R-squared	0.3079	0.3782
Adjusted R-squared	0.2785	0.3518
F-stat	13.5415***	17.9551***
Years FE	Yes	Yes

Note (s): *, **, *** denote the statistical significance at 10%, 5% and 1%, respectively. Robust standard errors in parentheses.

Source: Authors' estimation results

3.2 Presentation and interpretation of results:

Hypothesis H1-a predicts a significant positive effect of audit firm size on firm performance, using both accounting and market-based measures of performance. Table III reports the results of the link between audit quality and firm performance by estimating the first equation using a pooled OLS model. Consistent with our expectations, the results support the main hypothesis and indicate that audit firm size has a significant positive impact on the four proxies of accounting-based performance measures. All The coefficients of audit quality are significant

at the 1 percent level, ($t= 6,6$, $p<0,01$), ($t=4,97$, $p<0,01$), ($t=6$, $p<0,01$), ($t= 4,66$, $p<0,01$), respectively, which means that financial performance is associated with audit firm size. The results from Table IV indicate that all coefficients of audit firm size are significant at 1 percent level, ($t= 5$, $p<0,01$), ($t=4,92$, $p<0,01$). These results lead us to accept and validate our hypothesis. Our results align with the empirical findings of multiple scholars, supporting the agency and stakeholders' theories, suggesting that audit quality is a crucial external supervisory mechanism for stakeholders. The results can be explained by the fact that well-reputed external auditors have a brand to protect, moreover, audit services provided by BIG-4 audit firms give assurance to stakeholders, hamper managerial discretionary power, and push managers to a better allocation of resources, as a consequence, firms' investment efficiency increases (Boubaker et al., 2018). The empirical results are consistent with the notion that auditor firm size enhances firm valuation in the market and potentially boosts the confidence of stakeholders, helping firms get access to financing from borrowers, through the auditor's independence, competence and reputation (Boubaker et al., 2018; Dakhli, 2022). In line with findings of prior studies, BIG-4 auditors are perceived as a robust mechanism to align interest between different stakeholders, reduce agency costs and information asymmetry, and transmit green signals to investors about the transparency and quality of financial reporting (Asghar et al., 2020; Sattar et al., 2020; Schäuble, 2018).

Robustness check:

To ensure the robustness and efficiency of our results, we replace our main independent variable (i.e. audit firm size) with the proxy of audit quality change, defined as a dummy variable that equals one if the firm changed from a Non-BIG4 auditor to a BIG-4 auditor, following previous studies (B. B. Francis et al., 2017; Mansi et al., 2004). **Table V** presents the last set of the regression results of our baseline model, by estimating the second equation. Using another proxy of audit quality (**UPBIG**), the results remain robust and consistent with our predictions, all the coefficients are significant at the 1% level except for (**ROE4**) at the five percent level. A comparison of coefficients' magnitude leads us to observe that the effect of audit quality change (**UPBIG**) on market-based performance measures (i.e. **MTB AND TQ**) is two times that of audit firm size (BIG-4), ($t=2,86$, $p<0,01$), ($t=3,30$, $p<0,01$), indicating that a change from a non-BIG4 auditor to a BIG-4 auditor (Upgrade) enhances firm performance, supporting the size or reputation theory of audit firms (DeAngelo, 1981; Huang et al., 2020). The results obtained from **Table V** and **Table VI** are robust and the coefficients meet the same significance level.

Table V: Robustness regression results (Audit quality change)

VARIABLES	(1) ROA4	(2) ROE4	(3) MTB	(4) TQ
UPBIG	0.0542*** (0.0185)	0.0847** (0.0347)	1.9533*** (0.6818)	0.9583*** (0.2905)
SIZE	0.0012 (0.0022)	-0.0004 (0.0051)	0.3797*** (0.0708)	0.1799*** (0.0344)
AGE	-0.0044 (0.0053)	-0.0311*** (0.0108)	-0.0196 (0.1592)	0.2151** (0.0841)
LIQ	-0.0411*** (0.0155)	-0.1877*** (0.0339)	-3.2860*** (0.4512)	-0.9312*** (0.2308)
LEV	-0.1484*** (0.0177)	-0.0971*** (0.0325)	-0.0875 (0.4673)	-1.3603*** (0.2544)
DIV	0.0638*** (0.0069)	0.1422*** (0.0140)	0.9623*** (0.2008)	0.5229*** (0.0984)
ATR	0.0144** (0.0061)	0.0229* (0.0138)	0.3572* (0.1917)	0.2056** (0.0923)
CASH	0.1608*** (0.0480)	0.3680*** (0.1215)	2.9075* (1.6010)	0.9223 (0.7012)
Constant	0.0868*** (0.0313)	0.2112*** (0.0628)	0.3386 (0.8267)	0.1667 (0.4082)
Observations	418	418	418	418
R-squared	0.4270	0.4249	0.3774	0.3116
Adjusted R-squared	0.4026	0.4005	0.3510	0.2824
F-stat	21.2412***	14.4993***	17.6034***	14.0306***
Years FE	Yes	Yes	Yes	Yes

Note (s): *, **, *** denote the statistical significance at 10%, 5% and 1%, respectively.

Robust standard errors in parentheses.

Source: Authors' estimation results

To increase the robustness of our results, we proceed to run multiple regressions using Feasible Generalized Least Square (FGLS) as a robustness check estimator to overcome potential issues of heteroskedasticity and autocorrelation (Affes & Jarboui, 2023; Alsmady, 2022; Kalsie & Shrivastav, 2016; Usman & Yakubu, 2019; Yoo & Koh, 2014; Zeitun, 2014).

Table VI: Robustness regression results (FGLS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	ROA4	ROA4	ROE4	ROE4	MTB	MTB	TQ	TQ
BIG4	0.0178*** (0.0032)		0.0292*** (0.0070)		0.5079*** (0.1263)		0.2781*** (0.0583)	
UPBIG		0.0350*** (0.0102)		0.0513*** (0.0174)		1.4984*** (0.3434)		1.0200*** (0.1918)
SIZE	-0.0012 (0.0014)	0.0019 (0.0013)	-0.0009 (0.0030)	0.0035 (0.0032)	0.2825*** (0.0544)	0.3477*** (0.0485)	0.1783*** (0.0252)	0.2179*** (0.0246)
AGE	-0.0085** (0.0036)	-0.0044 (0.0037)	-0.0340*** (0.0076)	-0.0231*** (0.0083)	-0.0029 (0.1196)	0.0120 (0.1188)	0.1434** (0.0583)	0.1759*** (0.0574)
LIQ	-0.0458*** (0.0088)	-0.0374*** (0.0080)	-0.1284*** (0.0182)	-0.0982*** (0.0200)	-2.9302*** (0.3310)	-2.9546*** (0.3281)	-1.0893*** (0.1435)	-1.0968*** (0.1498)
LEV	-0.1454*** (0.0113)	-0.1439*** (0.0111)	-0.0839*** (0.0233)	-0.0932*** (0.0233)	-0.7966** (0.3102)	-0.9195*** (0.3186)	-1.4826*** (0.1520)	-1.5574*** (0.1577)
DIV	0.0497*** (0.0046)	0.0497*** (0.0043)	0.1145*** (0.0104)	0.1145*** (0.0101)	0.6521*** (0.1405)	0.6005*** (0.1287)	0.3230*** (0.0662)	0.2940*** (0.0653)
ATR	0.0177*** (0.0044)	0.0197*** (0.0045)	0.0256*** (0.0094)	0.0292*** (0.0092)	0.2510 (0.1587)	0.2442 (0.1607)	0.2186*** (0.0761)	0.1912** (0.0782)
CASH	0.1424*** (0.0390)	0.1113*** (0.0379)	0.2381*** (0.0862)	0.2248*** (0.0865)	2.4564* (1.3169)	1.4176 (1.2831)	0.9700 (0.6113)	0.5631 (0.6082)
Constant	0.1156*** (0.0207)	0.0833*** (0.0205)	0.2016*** (0.0438)	0.1351*** (0.0467)	1.0049* (0.6066)	0.7763 (0.5826)	0.4172 (0.3046)	0.1834 (0.3000)
Observations	418	418	418	418	418	418	418	418
Number of TKR	38	38	38	38	38	38	38	38

Standard errors in parentheses

*** p<0.01, ** p<0.05, *p<0.1

Source: Authors' estimation results

Conclusion:

The research aimed empirically to examine the link between external audit quality, financial performance and firm valuation, which the literature has ignored in emerging markets. Our research extends the debate on external audit quality effectiveness, our findings are in line with the agency and stakeholders' theories perspectives, indicating that auditor reputation impacts positively firm performance and corporate valuation. External auditors are deemed to be an effective monitoring mechanism in reducing agency costs and curbing managerial deleterious investment decisions. The empirical findings have important implications for investors, policymakers and different stakeholders. Hence, it is interesting to note that our study suffers from some limitations, first of all, the sample size is limited due to missing data and exclusion criteria, which can affect the external validity of our results. Some limitations are related to the econometric aspects, future studies need to address the problem of endogeneity by applying a dynamic panel data approach (GMM) to overcome results bias and boost the robustness of the findings (Abu Afifa et al., 2023; Al-Ahdal et al., 2023; Boshnak, 2023; Meah et al., 2021; Sattar et al., 2020; Yun et al., 2021; Zahid et al., 2023). Regarding future perspectives, we suggest future studies to adopt other proxies of external audit quality, such as auditor tenure (Le & Moore, 2021; Mansi et al., 2004; Saleh Aly et al., 2023) and auditor industry specialization (Fernando et al., 2010; Houmes et al., 2013). Finally, the extension of the sample and the consideration of other countries from the African continent would significantly contribute to the literature for a better understanding of the role and effectiveness of external auditors as a corporate governance mechanism in emerging markets.

References:

- Abu Afifa, M. M., Saleh, I. H., & Haniah, F. F. (2023). Does earnings management mediate the relationship between audit quality and company performance? Evidence from Jordan. *Journal of Financial Reporting and Accounting*, 36(2–3), 148–165. <https://doi.org/10.1108/JFRA-08-2021-0245>
- Affes, W., & Jarboui, A. (2023). The impact of corporate governance on financial performance: A cross-sector study. *International Journal of Disclosure and Governance*, 20(4), 374–394. <https://doi.org/10.1057/s41310-023-00182-8>
- Agyei-Mensah, B. K. (2018). Impact of corporate governance attributes and financial reporting lag on corporate financial performance. *African Journal of Economic and Management Studies*, 9(3), 349–366. <https://doi.org/10.1108/AJEMS-08-2017-0205>
- Agyemang-Mintah, P., & Schadewitz, H. (2018). Audit committee adoption and firm value: Evidence from UK financial institutions. *International Journal of Accounting & Information Management*, 26(1), 205–226. <https://doi.org/10.1108/IJAIM-04-2017-0048>
- Ahmed, A. M., Nugraha, D. P., & Hågen, I. (2023). The Relationship between Capital Structure and Firm Performance: The Moderating Role of Agency Cost. *Risks*, 11(6), Article 6. <https://doi.org/10.3390/risks11060102>
- Al Farooque, O., Buachoom, W., & Sun, L. (2019). Board, audit committee, ownership and financial performance – emerging trends from Thailand. *Pacific Accounting Review*, 32(1), 54–81. <https://doi.org/10.1108/PAR-10-2018-0079>
- Al-ahdal, W. M., & Hashim, H. A. (2022). Impact of audit committee characteristics and external audit quality on firm performance: Evidence from India. *Corporate Governance: The International Journal of Business in Society*, 22(2), 424–445. <https://doi.org/10.1108/CG-09-2020-0420>
- Al-Ahdal, W. M., Hashim, H. A., Almaqtari, F. A., & Saudagaran, S. M. (2023). The moderating effect of an audit committee on the relationship between ownership structure and firm performance: Evidence from emerging markets. *Cogent Business & Management*, 10(1), 2194151. <https://doi.org/10.1080/23311975.2023.2194151>
- Al-Ajmi, J. (2009). Audit firm, corporate governance, and audit quality: Evidence from Bahrain. *Advances in Accounting*, 25(1), 64–74. <https://doi.org/10.1016/j.adiac.2009.02.005>
- Alfraih, M. M. (2016). The role of audit quality in firm valuation: Evidence from an emerging capital market with a joint audit requirement. *International Journal of Law and Management*, 58(5), 575–598. <https://doi.org/10.1108/IJLMA-09-2015-0049>

- Aljifri, K., & Moustafa, M. (2007). The Impact of Corporate Governance Mechanisms on the Performance of UAE Firms: An Empirical Analysis. *Journal of Economic and Administrative Sciences*, 23(2), 71–93. <https://doi.org/10.1108/10264116200700008>
- Alkurdi, A., hamad, A., Thneibat, H., & Elmarzouky, M. (2021). Ownership structure's effect on financial performance: An empirical analysis of Jordanian listed firms. *Cogent Business & Management*, 8(1), 1–21. <https://doi.org/10.1080/23311975.2021.1939930>
- Alodat, A. Y., Al Amosh, H., Khatib, S. F. A., & Mansour, M. (2023). Audit committee chair effectiveness and firm performance: The mediating role of sustainability disclosure. *Cogent Business & Management*, 10(1), 2181156. <https://doi.org/10.1080/23311975.2023.2181156>
- Alsmady, A. A. (2022). Quality of financial reporting, external audit, earnings power and companies performance: The case of Gulf Corporate Council Countries. *Research in Globalization*, 5, 100093. <https://doi.org/10.1016/j.resglo.2022.100093>
- Alves, S. (2013). The impact of audit committee existence and external audit on earnings management: Evidence from Portugal. *Journal of Financial Reporting & Accounting*, 11(2), 143–165. <https://doi.org/10.1108/JFRA-04-2012-0018>
- Alzoubi, E. S. S. (2016). Audit quality and earnings management: Evidence from Jordan. *Journal of Applied Accounting Research*, 17(2), 170–189. <https://doi.org/10.1108/JAAR-09-2014-0089>
- Asghar, A., Sajjad, S., Shahzad, A., & Matemilola, B. T. (2020). Role of discretionary earning management in corporate governance-value and corporate governance-risk relationships. *Corporate Governance: The International Journal of Business in Society*, 20(4), 561–581. <https://doi.org/10.1108/CG-11-2019-0347>
- Badriyah, N., Sari, R. N., & Basri, Y. M. (2015). The Effect of Corporate Governance and Firm Characteristics on Firm Performance and Risk Management as an Intervening Variable. *Procedia Economics and Finance*, 31, 868–875. [https://doi.org/10.1016/S2212-5671\(15\)01184-3](https://doi.org/10.1016/S2212-5671(15)01184-3)
- Bakri, M. A. (2021). Moderating effect of audit quality: The case of dividend and firm value in Malaysian firms. *Cogent Business & Management*, 8(1), 2004807. <https://doi.org/10.1080/23311975.2021.2004807>
- Bhuiyan, Md. B. U., Cheema, M. A., & Man, Y. (2020). Risk committee, corporate risk-taking and firm value. *Managerial Finance*, 47(3), 285–309. <https://doi.org/10.1108/MF-07-2019-0322>

- Boshnak, H. A. (2023). Ownership structure and firm performance: Evidence from Saudi Arabia. *Journal of Financial Reporting and Accounting, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/JFRA-11-2022-0422>
- Boubaker, S., Houcine, A., Ftiti, Z., & Masri, H. (2018). Does audit quality affect firms' investment efficiency? *Journal of the Operational Research Society*, 69(10), 1688–1699. <https://doi.org/10.1080/01605682.2018.1489357>
- Buachoom, W. (2018). How Do Board Structures of Thai Firms Influence on Different Quantile Levels of Firm Performance? In C. F. Lee & M.-T. Yu (Eds.), *Advances in Pacific Basin Business, Economics and Finance* (Vol. 6, pp. 157–189). Emerald Publishing Limited. <https://doi.org/10.1108/S2514-465020180000006004>
- Buallay, A., Hamdan, A., & Zureigat, Q. (2017). Corporate Governance and Firm Performance: Evidence from Saudi Arabia. *Australasian Accounting, Business and Finance Journal*, 11(1), 78–98. <https://doi.org/10.14453/aabfj.v11i1.6>
- Coates, J. C. (2007). The Goals and Promise of the Sarbanes-Oxley Act. *The Journal of Economic Perspectives*, 21(1), 91–116.
- Conheady, B., McIlkenny, P., Opong, K. K., & Pignatelli, I. (2015). Board effectiveness and firm performance of Canadian listed firms. *The British Accounting Review*, 47(3), 290–303. <https://doi.org/10.1016/j.bar.2014.02.002>
- Dakhli, A. (2022). The impact of corporate social responsibility on firm financial performance: Does audit quality matter? *Journal of Applied Accounting Research*, 23(5), 950–976. <https://doi.org/10.1108/JAAR-06-2021-0150>
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183–199. [https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1)
- Detthamrong, U., Chancharat, N., & Vithessonthi, C. (2017). Corporate governance, capital structure and firm performance: Evidence from Thailand. *Research in International Business and Finance*, 42, 689–709. <https://doi.org/10.1016/j.ribaf.2017.07.011>
- Diab, A., Abdelazim, S., & Saleh Aly, S. (2024). The moderating effect of audit quality and COVID-19 on the dividend payout-firm performance relationship: Egypt evidence. *Cogent Business & Management*, 11, 2297464. <https://doi.org/10.1080/23311975.2023.2297464>
- El Mir, A., & Seboui, S. (2008). Corporate governance and the relationship between EVA and created shareholder value. *Corporate Governance: The International Journal of Business in Society*, 8(1), 46–58. <https://doi.org/10.1108/14720700810853392>

- Elamer, A. A., & Benyazid, I. (2018). The impact of risk committee on financial performance of UK financial institutions. *International Journal of Accounting and Finance*, 8(2), 161–180. <https://doi.org/10.1504/IJAF.2018.093290>
- Elmashtawy, A., Che Haat, M. H., Ismail, S., & Almaqtari, F. A. (2023). Audit committee effectiveness and audit quality: The moderating effect of joint audit. *Arab Gulf Journal of Scientific Research, ahead-of-print(ahead-of-print)*. <https://doi.org/10.1108/AGJSR-09-2022-0202>
- Fernando, G. D., Abdel-Meguid, A. M., & Elder, R. J. (2010). Audit quality attributes, client size and cost of equity capital. *Review of Accounting and Finance*, 9(4), 363–381. <https://doi.org/10.1108/14757701011094571>
- Ferraz, D. P., Lopes, I. T., & Kopliku, A. (2018). Can board diversity and choice of auditor enhance profitability? *International Journal of Business Performance Management*, 19(3), 289–306.
- Francis, B. B., Hunter, D. M., Robinson, D. M., Robinson, M. N., & Yuan, X. (2017). Auditor Changes and the Cost of Bank Debt. *The Accounting Review*, 92(3), 155–184. <https://doi.org/10.2308/accr-51553>
- Francis, J. R. (2023). What exactly do we mean by audit quality? *Accounting in Europe*, 0(0), 1–11. <https://doi.org/10.1080/17449480.2023.2247410>
- Gentry, R. J., & Shen, W. (2010). The Relationship between Accounting and Market Measures of Firm Financial Performance: How Strong Is It? *Journal of Managerial Issues*, 22(4), 514–530.
- Hewa Wellalagea, N., De Zoysa, A., & Ma, S. (2023). Corporate Cash Holdings and Firm Performance in India: An Empirical Investigation of the Effects of Audit Quality and Firm Growth. *American Business Review*, 26(1), 122–147. <https://doi.org/10.37625/abr.26.1.122-147>
- Houmes, R., Foley, M., & Cebula, R. J. (2013). Audit quality and overvalued equity. *Accounting Research Journal*, 26(1), 56–74. <https://doi.org/10.1108/ARJ-08-2011-0024>
- Huang, P., Wen, Y.-C., & Zhang, Y. (2020). Does the monitoring effect of Big 4 audit firms really prevail? Evidence from managerial expropriation of cash assets. *Review of Quantitative Finance and Accounting*, 55(2), 739–768. <https://doi.org/10.1007/s11156-019-00858-9>
- Husnin, A. I., Nawawi, A., & Puteh Salin, A. S. A. (2016). Corporate governance and auditor quality – Malaysian evidence. *Asian Review of Accounting*, 24(2), 202–230. <https://doi.org/10.1108/ARA-11-2013-0072>

- Jaffar, R., & Abdul-Shukor, Z. (2016). The role of monitoring mechanisms towards company's performance: Evidence from politically connected companies in Malaysia. *Journal of Accounting in Emerging Economies*, 6(4), 408–428. <https://doi.org/10.1108/JAEE-05-2014-0021>
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323–329.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Jermias, J., & Gani, L. (2014). The impact of board capital and board characteristics on firm performance. *The British Accounting Review*, 46(2), 135–153. <https://doi.org/10.1016/j.bar.2013.12.001>
- Jhunjhunwala, S., & Bavirishetty, S. (2009). Corporate Governance ♦ Codes and Reports of different Countries. *Indian Journal of Corporate Governance*, 2(2), 183–207. <https://doi.org/10.1177/0974686220090206>
- Kalita, N., & Tiwari, R. K. (2023). Audit committee characteristics, external audit quality, board diversity and firm performance: Evidence from SAARC nation. *Journal of Economic and Administrative Sciences*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/JEAS-08-2023-0235>
- Kalsie, A., & Shrivastav, S. M. (2016). Analysis of Board Size and Firm Performance: Evidence from NSE Companies Using Panel Data Approach. *Indian Journal of Corporate Governance*, 9(2), 148–172. <https://doi.org/10.1177/0974686216666456>
- Kamaludin, K., Sundarasan, S., & Ibrahim, I. (2023). Moderation effects of multiple directorships on audit committee and firm performance: A middle eastern perspective. *Cogent Business & Management*, 10(1), 2194147. <https://doi.org/10.1080/23311975.2023.2194147>
- Kao, M.-F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: Evidence from Taiwan. *Corporate Governance: The International Journal of Business in Society*, 19(1), 189–216. <https://doi.org/10.1108/CG-04-2018-0144>
- Khan, A. W., & Abdul Subhan, Q. (2019). Impact of board diversity and audit on firm performance. *Cogent Business & Management*, 6(1), 1611719. <https://doi.org/10.1080/23311975.2019.1611719>

- Le, B., & Moore, P. H. (2021). The impact of audit quality on earnings management and cost of equity capital: Evidence from a developing market. *Journal of Financial Reporting and Accounting, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/JFRA-09-2021-0284>
- Le, B., & Moore, P. H. (2023). The impact of audit quality on earnings management and cost of equity capital: Evidence from a developing market. *Journal of Financial Reporting and Accounting, 21*(3), 695–728. <https://doi.org/10.1108/JFRA-09-2021-0284>
- Mahrani, M., & Soewarno, N. (2018). The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable. *Asian Journal of Accounting Research, 3*(1), 41–60. <https://doi.org/10.1108/AJAR-06-2018-0008>
- Manita, R., Elommal, N., Baudier, P., & Hikkerova, L. (2020). The digital transformation of external audit and its impact on corporate governance. *Technological Forecasting and Social Change, 150*, 119751. <https://doi.org/10.1016/j.techfore.2019.119751>
- Mansi, S. A., Maxwell, W. F., & Miller, D. P. (2004). Does Auditor Quality and Tenure Matter to Investors? Evidence from the Bond Market. *Journal of Accounting Research, 42*(4), 755–793. <https://doi.org/10.1111/j.1475-679X.2004.00156.x>
- Meah, M. R., Sen, K. K., & Ali, Md. H. (2021). Audit Characteristics, Gender Diversity and Firm Performance: Evidence from a Developing Economy. *Indian Journal of Corporate Governance, 14*(1), 48–70. <https://doi.org/10.1177/09746862211007244>
- Mohapatra, S., & Pattanayak, J. K. (2024). Unraveling the Dynamics of Intellectual Capital, Firm Performance, and the Influential Moderators—BIG4 Auditors and Group Affiliation. *International Journal of Financial Studies, 12*(1), Article 1. <https://doi.org/10.3390/ijfs12010029>
- Mollah, S., Farooque, O., & Karim, W. (2012). Ownership structure, corporate governance and firm performance: Evidence from an African emerging market. *Studies in Economics and Finance, 29*. <https://doi.org/10.1108/10867371211266937>
- Nag, T., & Chatterjee, C. (2020). Exploring Linkages Between Corporate Governance and Business Performance: Does Good Corporate Governance Lead to Enhanced Business Value? *South Asian Survey, 27*(1), 37–61. <https://doi.org/10.1177/0971523120907189>
- Natalia, I., & Isnalita, I. (2023). Do females on boards enhance firm performance? Evidence from Indonesia manufacturing firm. *Contaduría y Administración, 69*(1), 431. <https://doi.org/10.22201/fca.24488410e.2024.4983>

- Nazir, M. S., & Afza, T. (2018). Does managerial behavior of managing earnings mitigate the relationship between corporate governance and firm value? Evidence from an emerging market. *Future Business Journal*, 4(1), 139–156. <https://doi.org/10.1016/j.fbj.2018.03.001>
- Nekhili, M., & Cherif, M. (2009). Related party transactions, ownership and governance characteristics and performance of French firms. *Comptabilite Controle Audit*, 15(3), 55–89.
- Nguyen, Q. M., & Nguyen, C. V. (2024). Corporate governance, audit quality and firm performance – an empirical evidence. *Cogent Economics & Finance*, 12(1), 2334128. <https://doi.org/10.1080/23322039.2024.2334128>
- Ntim, C. G. (2015). Board diversity and organizational valuation: Unravelling the effects of ethnicity and gender. *Journal of Management & Governance*, 19(1), 167–195. <https://doi.org/10.1007/s10997-013-9283-4>
- Ofori-Sasu, D., Abor, J. Y., & Quaye, S. (2019). Do Shareholders Fight for Firm Value or Market Value in Emerging Markets? The Mediating Effect of Board Structure Dynamics on Dividend Policy Decision. *African Development Review*, 31(4), 409–422. <https://doi.org/10.1111/1467-8268.12401>
- Owusu, A., & Weir, C. (2016). The governance-performance relationship: Evidence from Ghana. *Journal of Applied Accounting Research*, 17(3), 285–310. <https://doi.org/10.1108/JAAR-06-2014-0057>
- Pandey, N., Andres, C., & Kumar, S. (2023). Mapping the corporate governance scholarship: Current state and future directions. *Corporate Governance: An International Review*, 31(1), 127–160. <https://doi.org/10.1111/corg.12444>
- Piot, C., & Janin, R. (2007). External Auditors, Audit Committees and Earnings Management in France. *European Accounting Review*, 16(2), 429–454.
- Rompotis, G., & Balios, D. (2023). Audit quality, firm performance and risk: Evidence from Greece. *Review of Accounting and Finance*, 22(5), 636–662. <https://doi.org/10.1108/RAF-02-2023-0038>
- Saleh Aly, S. A., Diab, A., & Abdelazim, S. I. (2023). Audit quality, firm value and audit fees: Does audit tenure matter? Egyptian evidence. *Journal of Financial Reporting and Accounting*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/JFRA-04-2023-0203>
- Sarhan, A. A., Ntim, C. G., & Al-Najjar, B. (2019). Board diversity, corporate governance, corporate performance, and executive pay. *International Journal of Finance & Economics*, 24(2), 761–786. <https://doi.org/10.1002/ijfe.1690>

- Sarker, N., & Hossain, S. M. K. (2023). Corporate governance and firm value: Bangladeshi manufacturing industry perspective. *PSU Research Review*. <https://doi.org/10.1108/PRR-04-2023-0060>
- Sattar, U., Javeed, S. A., & Latief, R. (2020). How Audit Quality Affects the Firm Performance with the Moderating Role of the Product Market Competition: Empirical Evidence from Pakistani Manufacturing Firms. *Sustainability*, 12(10), Article 10. <https://doi.org/10.3390/su12104153>
- Sayed, E., Mansour, K., & Hussainey, K. (2024). Intangible investment and non-financial performance of Egyptian firms: The moderating role of the COVID-19 pandemic. *Journal of Financial Reporting and Accounting*, 22(3), 608–633. <https://doi.org/10.1108/JFRA-10-2021-0362>
- Schäuble, J. (2018). The impact of external and internal corporate governance mechanisms on agency costs. *Corporate Governance: The International Journal of Business in Society*, 19(1), 1–22. <https://doi.org/10.1108/CG-02-2018-0053>
- Shan, Y. G. (2019). Managerial ownership, board independence and firm performance. *Accounting Research Journal*, 32(2), 203–220. <https://doi.org/10.1108/ARJ-09-2017-0149>
- Singla, M., & Singh, S. (2019). Board monitoring, product market competition and firm performance. *International Journal of Organizational Analysis*, 27(4), 1036–1052. <https://doi.org/10.1108/IJOA-07-2018-1482>
- Sri, M., & Solimun, S. (2019). The relationship between audit quality and risk taking toward value creation in Indonesia. *Journal of Accounting in Emerging Economies*, 9(2), 251–267. <https://doi.org/10.1108/JAEE-11-2017-0110>
- Tran, M. D., Khairi, K. F., & Laili, N. H. (2019). A longitudinal study of audit quality differences among independent auditors. *Journal of Economics and Development*, 21(2), 234–246. <https://doi.org/10.1108/JED-10-2019-0040>
- Usman, O., & Yakubu, U. A. (2019). An investigation of the post-privatization firms' financial performance in Nigeria: The role of corporate governance practices. *Corporate Governance: The International Journal of Business in Society*, 19(3), 404–418. <https://doi.org/10.1108/CG-05-2018-0190>
- Vieira, E. S. (2018). Board of directors characteristics and performance in family firms and under the crisis. *Corporate Governance: The International Journal of Business in Society*, 18(1), 119–142. <https://doi.org/10.1108/CG-01-2017-0010>

- Vintilă, G., & Gherghina, Ș. C. (2014). The Impact of Ownership Concentration on Firm Value. Empirical Study of the Bucharest Stock Exchange Listed Companies. *Procedia Economics and Finance*, 15, 271–279. [https://doi.org/10.1016/S2212-5671\(14\)00500-0](https://doi.org/10.1016/S2212-5671(14)00500-0)
- Vintilă, G., Onofrei, M., & Gherghina, Ș. C. (2015). The Effects of Corporate Board and CEO Characteristics on Firm Value: Empirical Evidence from Listed Companies on the Bucharest Stock Exchange. *Emerging Markets Finance and Trade*, 51(6), 1244–1260. <https://doi.org/10.1080/1540496X.2015.1073518>
- Walliman, N. (2016). *Social research methods: The essentials* (2nd edition). SAGE.
- Watts, R. L., & Zimmerman, J. L. (1983). Agency Problems, Auditing, and the Theory of the Firm: Some Evidence. *The Journal of Law & Economics*, 26(3), 613–633.
- White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica*, 48(4), 817. <https://doi.org/10.2307/1912934>
- Yoo, T., & Koh, Y. (2014). Agent or structure for principal–principal conflicts? Audit firms versus foreign ownership in the Asian context. *Asian Business & Management*, 13(4), 309–332. <https://doi.org/10.1057/abm.2014.11>
- Yun, J., Ahmad, H., Jebran, K., & Muhammad, S. (2021). Cash holdings and firm performance relationship: Do firm-specific factors matter? *Economic Research-Ekonomska Istraživanja*, 34(1), 1283–1305. <https://doi.org/10.1080/1331677X.2020.1823241>
- Zahid, R. M. A., Khan, M. K., Anwar, W., & Maqsood, U. S. (2022). The role of audit quality in the ESG-corporate financial performance nexus: Empirical evidence from Western European companies. *Borsa Istanbul Review*. <https://doi.org/10.1016/j.bir.2022.08.011>
- Zahid, R. M. A., Saleem, A., Maqsood, U. S., & Sági, J. (2023). Moderating role of audit quality in ESG performance and capital financing dynamics: Insights in China. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-023-03636-9>
- Zeitun, R. (2014). Corporate Governance, Capital Structure and Corporate Performance: Evidence from GCC Countries. *Review of Middle East Economics and Finance*, 10(1). <https://doi.org/10.1515/rmeef-2012-0028>
- Zhou, H., Owusu-Ansah, S., & Maggina, A. (2018). Board of directors, audit committee, and firm performance: Evidence from Greece. *Journal of International Accounting, Auditing and Taxation*, 31, 20–36. <https://doi.org/10.1016/j.intaccaudtax.2018.03.002>
- Žukauskas, P., Vveinhardt, J., Andriukaitienė, R., Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and Paradigm of Scientific Research. In *Management*

Culture and Corporate Social Responsibility. IntechOpen.
<https://doi.org/10.5772/intechopen.70628>