Journal of Infrastructure, Policy and Development 2024, 8(3), 3428.
https://doi.org/10.24294/jipd.v8i3.3428

Article

The moderating impact of institutional shareholders on the relationship between audit quality and firm value

Walaiporn Nuansa-ard, Wachira Boonyanet, Supa Tongkong*

Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Pathum Thani 12110, Thailand
*** Corresponding author:** Supa Tongkong, supa_t@rmutt.ac.th

CITATION

Nuansa-ard W, Boonyanet W, Tongkong S. (2024). The moderating impact of institutional shareholders on the relationship between audit quality and firm value. Journal of Infrastructure, Policy and Development. 8(3): 3428. https://doi.org/10.24294/jipd.v8i3.3428

ARTICLE INFO

Received: 24 November 2023
Accepted: 29 December 2023
Available online: 30 January 2024

Abstract: This research attempts to investigate the effect of audit quality on firm value in the high corporate governance context. In addition, this study seeks to examine the role of institutional shareholders as a moderating variable on the relationship between audit quality and firm value. Dataset includes the 95 (out of 575) Thai listed companies which fully and completely implement the Corporate Governance Code (CG Code) voluntary disclosure recommended by OECD (Organisation for Economic Co-operation and Development) in 2021. Multiple linear regression and Hayes's regression-based analysis are done using market capitalization as the dependent variable. The research results illustrate that audit quality relates to firm value in a negative way, while profitability and institutional shareholders relate to firm value in a positive manner. Moreover, the interaction effect between audit quality and institutional shareholders wields a significant negative impact on the association between audit quality and firm value, which indicates that the negative effect of audit quality on firm value is stronger when more firm shares are owned by institutional shareholders. The results of this study would potentially be very useful to managers, financial advisors, and policymakers to observe the nature and vagaries of audit quality in high corporate governance environment, especially when institutional shareholders hold a significant proportion of firm shares. The study offers practical suggestions and recommendations for audit quality and institutional shareholders, which are essential for overall operating efficiency and firm value. The outcomes can help improve corporate governance practices, which in turn enhance the share price and profits.

Keywords: corporate governance; institutional shareholders; audit quality; market capitalization

1. Introduction

The recent scandal involving a Thai company's finances has triggered concerns about the integrity of audit quality. In February 2023, the Stock Exchange of Thailand (SET) revealed failings at multiple levels of a company that was part of the Top 100. Its 2022 financial statements initially documented a net income of around 3 billion baht with sales amounting to more than 25 billion baht. After a special audit, what actually happened was the firm had a loss of 5.99 billion baht and sales were only 17.49 billion baht. The external auditor who worked for one of the Big 4 firms during the 2020 – 2021 financial year, was replaced by another Big 4 company which produced a modified audit report in 2022. The 2022 audited financial statements were submitted seven months late and the affected company's stock price fell from 4.96 in 2021 to 0.02 baht per share in 2023 (SET, 2023).

Scandals such as this always cause investors to agonize over financial losses regarding their reliance on external auditors who are trusted to produce true financial

statements. Farouk and Hassan (2014) stated that generally, the main objective of a financial audit is to deliver an independent assurance that companies fairly and honestly presented their operating results and financial positions. External auditors were required to support the achievement of high-quality financial reporting. For this reason, audit quality is now a major concern of the trustworthiness of financial reports (Iliemena and Okolocha, 2019). Studies have long scrutinized the informative value of audit quality for some years now. On one hand, research findings appreciate the ability of external auditors who add information value to financial markets (Phana et al., 2020; Al-ahdal and Hashim, 2022; Zahid et al., 2022; etc.). On the other hand, some studies argue that based on publicly available information, external auditors may not convey important or even correct messages to financial statement users (Almarayeh et al., 2020). If the informative value of audit quality is inconclusive, investors, especially minority shareholders, are in trouble.

The above scandal brings a research opportunity to revisit audit quality of an emerging market. Furthermore, this study significantly fulfills the research gap of prior studies. Firstly, recent events and other research motivated this study to investigate the informative value of audit quality and what it means for firm value. However, unlike previous studies, this one analyzes only quoted companies whose corporate governance activities are highly reputed. This is to gain insights into the informative value of audit quality when companies fully and completely implement the OECD-recommended CG Code. Secondly, previous studies define firm value in different means; however, the study introduces market capitalization as firm value measurement for the analysis of informative value of audit quality. Market capitalization is one of the most important indicators suggesting both company health, and efficiency and steady progress of the capital markets (Khrawish et al., 2010). Also, based on the formula of market capitalization, a stock price is multiplied by the number of registered common shares. Previous studies have proven that stock price information would immediately respond to new information sent to the markets. For this reason, market capitalization is employed to observe the information value of audit quality in this study.

Thirdly, this study expands on previous research by introducing the moderating variable of institutional shareholders into the analysis. Institutional shareholders have become important investors (Tihanyi et al., 2012). Institutional shareholders tend to invest in emerging markets due to the high returns being made. Institutional investors are deemed to play a vital role in capital markets. As of December 2017, De La Cruz et al. (2019) asserted that institutional investors held 41% of the world's market capitalization, while in emerging Asian economies excluding China, institutional shareholders held 16% of market capitalization. However, research on the influence of Thai institutional investors on capital market is still limited (Saengchote and Sthienchoak, 2021). This opens a new opportunity to investigate this area.

Based on the preceding discussion, this study aims to investigate the informative value of audit quality shapes firm value when moderated by institutional shareholders. The present study's contributions to the topic are as follows. First, it intends to observe the linkage between audit quality, institutional shareholders, and firm value. More significantly, it investigates the moderating role of institutional shareholders on the association between audit quality and firm value, filling a gap in our knowledge.

Second, rather than using all quoted companies, the study develops its sample dataset focusing only on those which fully and completely implement the OECD-recommended CG Code. These companies are considered as reasonable corporate governance environments. This is to generate insights into the informative value of audit quality in high corporate governance firms. Third, the model of this study is based on agency theory (Jensen and Meckling, 1976) but also two related concepts: auditor inspired confidence theory and institutional theory. Consequently, the study intends to add to the academic knowledge by providing empirical evidence garnered from the Thai stock market. Finally, by concentrating on audit quality and institutional shareholders, the findings generate several explanations for the impact of informative value by external auditors via firm value and when institutional shareholders moderate this relationship.

The findings reported here reveal that audit quality has a negative impact on firm value. In addition, the analysis shows that the institutional shareholders and profitability ratios are positively linked to firm value. Furthermore, the institutional shareholders play a good role as a moderating effect on the relationship between audit quality and firm value in a negative way; the negative effect of audit quality on firm value is stronger when more firm shares are owned by institutional shareholders.

The rest of the paper is structured as follows. Section 2 covers the literature review and hypothesis development. Section 3 presents the research methodology including dataset, measuring, hypotheses and regression models. Section 4 describes the data analysis and results while Section 5 deals with the discussion and implementation. Finally, Section 6 describes the conclusion of the main themes covered here.

2. Literature review and hypothesis development

2.1. Underlining theories

The underlying theories of this study include three important theories: agency theory, auditor inspired confidence theory, and institutional theory. Firstly, agency theory is considered as the basis of this study. Agency theory explained the relationship between ownership and management structure. Good corporate governance should be used to maintain the benefits of the organization and reduce conflicts between shareholders and managers. The first group is called the principal, who agrees to give the resources and rights to manage the resources that they have. The second group, called the agent who manages and ensures the principal receives the highest return and the agent will receive compensation for that work. As mentioned, the main objective of this study is to observe the informative value of financial ratios which are the operating results of management on firm value (Jensen and Meckling, 1976). In addition, Wallace (1980) identified three assumptions to explain the need for auditing, which are the assumptions of stewardship, information, and insurance. The best explanation of these assumptions using agency theory, which explains the relationship between the company's management (agent) and its shareholders (principal), is that the agent can better represent the principal because he has more information about the company's value. DeAngelo (1981) stated that audit quality is defined as the ability of auditors to identify wrongdoing by clients in their

accounting systems and takes the form of financial statement manipulations. DeFond and Zhang (2014) described audit quality definition in the 21st century as the higher assurance that comes from clients' financial reporting systems with relevant features or characteristics. External auditors play vital roles in certifying financial statements. So it can be state here that professional auditing standards refer to the auditor's responsibility to increase the confidence level of financial statement users, by expressing an opinion on whether financial reporting is fairly presented in material concern in accordance with the related auditing framework. Auditors must collect sufficient and appropriate evidence to reduce audit risk (IFAC, 2017). The definition of audit quality is subjective and based on the kind of research being done. Kneche et al. (2013) saw audit quality as divided into four categories: inputs, process, outcomes, and context. First, the inputs represent the audit team including professional skepticism, knowledge, and expertise. Second, the process was measured by risk assessment, tests of control effectiveness, analytical procedures, and working paper review. Third, the outcomes represent various observable characteristics, for example, restatements and quality of financial reporting, audit report accuracy, and regulatory or legislative consistency. Fourth and finally, the context includes the audit fees, tenure, and staff payments. This study will help researchers by enabling them to identify audit quality proxies.

Secondly, the study employs the auditor inspired confidence theory stating that auditors as a confidential agent whose function is derived from the need for expert and independent examination as well as the need for expert judgment supported by the audit work. This theory establishes a link between the users' need for reliable financial reports and the audit work's ability to meet those needs. As a result, auditors must be aware that the public expects audit failure rates to be low. As a result, auditors must plan and carry out their audits in such a way that the risk of undetected material misstatements is kept to a bare minimum. The auditor is required to conduct his work in a way that does not betray his trust. In addition, the auditor's duties and responsibilities are derived from the public's confidence and trust in the audit's success and the auditor's assurance. In addition, it was also stated that society's trust in audited financial statements is misplaced when the audit process fails to address societal expectations, resulting in a loss of the audit's value relevance (Limperg, Flint, and Bak, 1985).

Thirdly, this study introduces institutional shareholders as a moderating variable. Institutional shareholders are based on institutional shareholder theory. The study by Scott (1995) defines institutional shareholder theory by stating that in organizational contexts, institutional theory focuses on the social structure which should be deep and resilient. The theory is guided by the processes of systems, norms, rules, and practices, and these become established as accepted guidelines and expectations for social conduct. The very close definition of institutional shareholders in this study is stated by Kraft and Furlong (2007) who contend that the creation of policies puts the focus on the formal and legal features of government systems. More practically, Lina and Fub (2017) remarked that there are three perspectives of institutional ownership: active monitoring, passive monitoring, and exploitation. Active monitoring occurs when institutional investors actively follow a firm's operations in the hope that information asymmetry is curtailed, addressing agency issues, and improving performance.

Consequently, the interaction between engaged institutional shareholders may improve performance. Passive monitoring occurs when institutional investors are short-term speculators more concerned with short-term or immediate profits based on access to privileged information rather than relying on monitoring to improve how well the firm performs. As a result, it is reasonable to assume that there is no relationship or a minimal association between business performance and institutional ownership. According to the exploitation viewpoint, on the other hand, institutional investors might support management in its attempt to exploit small shareholders and undermine a company's performance. In particular, if they stand to gain financially from it, they might ignore the reality of management fraud. Therefore, if management engaged in actions that compromised firm value, there would be friction between business performance and what institutional shareholders expect. Institutional shareholders may not directly relate to firm value and in fact, they may be outsiders of the firms and use publicly available information including financial statements, corporate governance, auditor opinions, etc., when making investment decisions. If the information indicates pre-warning signal, the investments are less likely to occur.

2.2. Audit quality and firm value

Research has scrutinized the informative value of audit quality. The results indicated both favourable and unfavourable outcomes. Many previous studies found that audit quality influences firm performance in a positive way. Afza and Nazir (2014) explored the impact of audit quality on firm performance. Their analysis strongly noted that audit committee size and external audit quality (Big 4, Non-Big 4) had a significant and positive impact on return on assets and Tobin's Q. Aledwan et al. (2015) investigated the influence of audit quality on companies' performance. Their study suggested that audit firm size and auditor independence wielded a significant influence on firms' operations; however, independence had a greater effect than size. Sim et al. (2016) examined the effect of audit quality on financial success, and they suggested that complying with financial reporting standards, disclosure of related information and audit firm size had a positive correlation with firm performance. Phana et al. (2020) investigated the impact of audit quality on firm performance. The study found that firm performance was greatly improved by audit quality. The analysis also stated that audit quality had a favourable effect on both employee satisfaction and customer loyalty. Al-ahdal and Hashim (2022) analysed the effect of audit quality (Big 4, Non-Big 4) on firm performance of quoted non-financial companies. The analysis noted that external audit quality significantly and positively guided firm performance. Afifa and Abdallah (2020) found that audit quality and earnings separately drove the share price up.

Salehi et al. (2022) investigated the risk of stock price crashes and audit quality (auditor industry specialization, and audit fees). The findings found a significant and favourable relationship between the stock price crash and audit fees. Kuo et al. (2022) stated that the quality of an individual auditor offered more informative value than audit firms since investors realized that the knowledge acquired at an individual auditor level was not always or completely communicated within audit firms. Zahid et al. (2022) revealed that environmental, social, and governance (ESG) in its entirety

or in sub-component form has a significantly negative effect on ROA (Return on Assets). Additionally, ESG (Environmental, Social, and Governance) adversely influences ROA. However, ESG has a significantly positive effect on revenue. Also, audit firm size (Big 4, Non-Big 4) played a moderating role between ESG and ROA in a negative manner. Afifa and Hamad (2023) found that auditor tenure has a negative effect on ROA while audit firm size has a positive impact on ROE (Return on Equity) and EPS (Earnings Per Share).

Previous studies investigated the informative value of audit quality from other perspectives. For example, Chen et al. (2018) examined the influence of audit quality (i.e., multinational audit firms) on stock prices. They found that high quality auditors provided high quality financial statements. Alfraih (2016) investigated the effect of audit quality (joint audit of Big 4 combined companies) on equity valuation, earnings, and book value relevance. The analysis discovered that audit quality has a favourable and significant effect on market participants. Significant differences in earnings and equity valuation taken together among the auditor combinations were revealed. Ivungu, Anande, Ogirah, (2019) revealed the influence of audit quality on improving the quality of profits. Audit firm size, audit fees, auditor's opinion, and auditor specialization were employed to measure audit quality. The results showed that audit fees wielded the most important influence on the quality of earnings.

In summary, some studies do not agree with previous outcomes stating that audit quality negatively impacted firm performance. Elewa and El-Haddad (2019) examined the impact of audit quality on firm performance. They found that Big 4 and audit rotation had an insignificant influence on return on assets and returns on equity. Almarayeh et al. (2020) stated that in emerging economies, external auditors did their work very differently from those in the Western economies. In an institutional environment, auditor size and fees had no significant relationship with earnings management. Afifa et al. (2021) investigated the relationship among audit quality (audit size, audit tenure, industry-specialist audit firm), firm performance (ROE, ROA and EPS) and earnings management in direct and mediating dimensions. The study indicated that audit quality, firm performance and earnings management have significant effect to each other. Earnings management practices either fully or partially mediate the relationship between audit quality and ROA, ROE, and EPS. Bakri (2021) stated that dividends had negative effect to firm value, whereas audit quality moderated the association between dividends and firm value. Yolandita and Cahyonowati (2022) examined the influence of audit quality (Big 4, Non-Big 4) on firm value and revealed that audit quality had a significant and negative effect on firm value; Big 4 and Non-Big 4 firms elicited the same standard of performance. Afifa et al. (2023) noted that audit firm industry specialization had positive effect to earnings management practices. Audit firm size and audit firm industry specialization positively affect company value. Moreover, earnings management practices had a negative effect on company value, while earnings management practices functioned as a mediator in the relationship between audit quality and company value.

However, even if previous studies have investigated the requirement of higher audit quality, some studies raised some concerns about this issue. Xin (2020) stated that the higher the audit fees charged, the better an accounting firm's reputation because the higher audit services means that more trustworthy information is being

sent to financial statement users. Quoted corporations willingly pay reputable accounting firms above-average fees, and this is done to reduce the possibility of their financial statements being doubted. Gunn et al. (2019) stated that the audit market is dominated by the Big 4 companies, which set the prices of auditing tasks. The study found that Big 4 audit fees create barriers to entry into the market and make it difficult for competing auditors to compete well. Audit quality can decline in a Big 4-dominated market no matter how much is charged in terms of fees for the work done. The above review has summarized both the advantages and disadvantages of the informative value of audit quality. Consequently, this study challenges the informative value of audit quality. This study offers the following hypothesis as follows:

Hypothesis 1: Audit quality is positively associated with firm value.

2.3. Institutional shareholders and firm value

Previous studies have set out to understand how ownership structures affect firm value and business performance. For example, Lina and Fub (2107) examined the impact of institutional shareholders on firm performance and their conclusion was that they demonstrated that institutional shareholders positively affected firm performance. However, not all institutional shareholders actively monitor firm performance in such a way that it is enhanced. Domestic and small institutional shareholders, shareholders with pressure-insensitive and foreign institutional shareholders had a significant impact on firm performance. Ngakan and Marcellia (2021) investigated how institutional ownership, the reputation of external auditors, and financial leverage affect profit management. Their study concluded from three pieces of evidence that institutional ownership had a negative impact on profit management. The auditor's reputation had a detrimental effect on firm performance as did financial leverage. Afifa and Haniah (2021) noted that ownership concentration positively affects companies' cash holdings and these in turn can negatively affect firm value. In addition, the board of directors' ownership, organizational ownership and foreign ownership directly affect firm value, and had an indirect effect on firm value through the mediation of cash holdings.

In Thailand, the government sets the policy of how institutional shareholders can operate, through the Stock Exchange of Thailand (SET) allowing only some investors to trade stocks in the name of institutional shareholders. These include the Bank of Thailand, commercial banks and finance, insurance companies, mutual funds, provident funds, social security agencies among others. These institutional shareholders want to stabilize the stock market and shield it from volatility (Sooksarun and Supattarakul, 2015). Sooksarun and Supattarakul (2015) investigated the connection between the SET index's volatility and institutional investors' trading activity. Their analysis indicated that institutional investors' net purchases eventually stabilize the SET index even if their individual purchases might either stabilize or destabilize it. However, this analysis revealed empirical evidence demonstrating that institutional shareholders' net buys steadied the SET index only during downmarket situations, not during the upmarket, so it was not definitive that institutional shareholders were reasonable. According to Saengchote and Sthienchoak (2021), institutional investors were crucial in the capital markets because they help with

capital intermediation, governance monitoring, and opportunity identification. The study noted that institutional investors contributed to the discovery of Real Estate Investment Trusts Initial Public Offerings (REITs IPOs) prices and were compensated in various ways for their involvement. While private institutional shareholders were more energetic in later years following a regulatory modification of REITs, public institutional investors were more influential in initial years when the market was less active. In summary, institutional shareholders play a significant role in firm performance and the Thai economy. This introduces the second hypothesis for testing as follows:

Hypothesis 2: Institutional shareholders are positively associated with firm value.

2.4. Institutional shareholders moderate audit quality on firm value

Based on the authors' knowledge, there is no study to date addressed the moderating role of institutional shareholders on the relationship between audit quality and firm value in Thailand. The very close studies of the research, for example, Ali and Lesage (2013) investigated the use of auditors as a monitoring technique to reduce agency issues brought on by various sorts of controlling shareholders. The analysis noted there was no relationship between audit fees and family shareholders, a negative relationship between audit fees and institutional shareholders, a positive relationship between audit fees and government shareholders. These findings highlight the conflicting influences of ownership type on audit fees. KhosroKhah (2018) suggested that institutional ownership was a critical stock investment indication and can have a significant influence on a company's behaviour. The association between related party transactions and firm performance was investigated. The study found that institutional shareholders weakened the link between related party transactions and firm performance. Recently, Li and Wang (2022) investigated how qualified international institutional investors affect the audit fees paid by investee companies. According to the study, institutional ownership has a favourable relationship with audit fees. In this study, institutional shareholders could be considered as a moderating variable on the relationship between audit quality and firm performance. This brings into focus the third hypothesis for testing as follows:

Hypothesis 3: Institutional shareholders moderate the association between audit quality and firm value.

2.5. Conceptual framework

The main aim of this study is to examine the relationship between audit quality and firm value. Offered here is further evidence of the role of institutional shareholders as a moderator in the relationship between audit quality and firm value. The conceptual framework is presented in **Figure 1**.

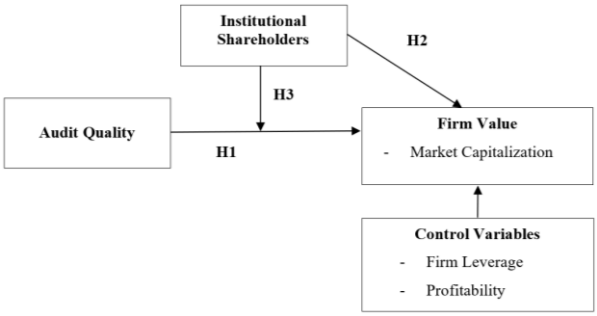

Figure 1. Conceptual framework.

3. Research methodology

3.1. Dataset

Instead of using all the companies listed on the SET, this study employs only those companies that fully implement the CG Code voluntary disclosure as recommended by OECD. This will help to produce insights about the informative value of audit quality on firm value when corporate governance activities are fully adopted. Here is the development of the corporate governance in Thailand.

The 1997 economic crisis caused damage to Thai capital market. Thai government established the Master Plan for capital market development. One of the key solutions was to create good corporate governance in listed companies. In 2002, the government officially announced the good corporate governance campaign on a national agenda. In 2004, Thailand participated in the World Bank's Corporate Governance Assessment Program. It is intended for both domestic and international investors to be well informed about the development of corporate governance regarding the supervision of the Thai capital market. The criteria used by the World Bank in assessing Thailand are based on the OECD Principles established by the Organization for Economic Co-operation and Development. In 2006, the Stock Exchange Commission (SEC) proposed good corporate governance principles to listed companies which were comparable to the OECD's corporate governance principles. Later in 2012, it was revised again to comply with the ASEAN (Association of Southeast Asian Nations) Corporate Governance Scorecard, which is divided into 5 sections as follows 1) Rights of Shareholders 2) Equitable Treatment of Shareholders 3) Roles of Shareholders 4) Disclosure and Transparency 5) Board Responsibilities. The Thai capital market has used good corporate governance principles set by the Stock Exchange of Thailand as an important mechanism for enhancing CG in listed companies.

The CG Code was introduced in the SET in 2017 as a guideline to support listed companies' boards (Self-Discipline) in their creation of a good corporate governance mechanism or system. Compliance with the CG Code is based on the "Apply or Explain" principle, which is for the board to apply the principles as appropriate to the company's business context such as the industry it operates in. The CG Code also provides the guidelines and explanations in Compliance with the Code of Conduct. It should be noted that the board committee may use other procedures that fulfill the intent of the Code and if these are more appropriate, then these will be recorded as well. Applying the CG Code properly will benefit the company itself and the

shareholders, customers, and related parties. The CG Code is based on the CG Principles of the Organization for Economic Co-operation and Development, which are the same principles that the 2012 Principles of Good Corporate Governance use to reference the guidelines for corporate social responsibility. International principles of good corporate governance include The U.K. Corporate Governance Code (2016), Malaysian Code on Corporate Governance (2012), King Code of Governance for South Africa (2009) and Integrating Governance for Sustainable Success of the International Federation of Accountants (2012) (SET, 2023).

This study employs the year 2021 as the dataset environment. This is because the quoted companies spent one-two years training their administrators on how to deploy the CG Code concept, but also incorporates the COVID-19 pandemic. As of December 2021, the total of 575 quoted companies were listed on the SET. This research establishes a new coding scheme by employing content analysis to scrutinize and measure the CG Code voluntary disclosure levels of 95 listed companies. The criteria scores were from the Guidelines for Corporate Governance Principles recommended by OECD, and the total of 137 practical issues were organized into 8 overarching principles (SET, 2023). The study introduces the rating score based on a Likert scale-type arrangement with 5 scores as follows: 5 = full disclosure, 4 = high disclosure, 3 = moderate disclosure, 2 = limited disclosure, 1 = rare disclosure (Jebb et al., 2021). **Table 1** shows the score results of CG Code voluntary disclosures of the 95 listed companies used in the analysis. The results show that the mean value of the overall score represents 3.88/5 which is considerably high. The set objective category is the highest score, while the Carry out specified objectives have the lowest score. The valuation result is shown in **Table 1**.

Table 1. Evaluation scores of the CG Code voluntary disclosure.

	Items	Mean	Median	SD	Min	Max
Set objective	**Principle 1** Establish clear leadership role and responsibilities of the board	4.47	4.50	0.554	3.00	5.00
	Principle 2 Define objectives that promote sustainable value creation	3.91	3.90	0.504	3.00	5.00
	Principle 3 Strengthen board effectiveness	3.82	3.82	0.501	2.73	4.95
Carry out the specified objectives	**Principle 4** Ensure effective CEO and people management	3.67	3.86	0.716	2.29	5.00
	Principle 5 Nurture innovation and responsible business	3.75	3.67	0.650	2.00	5.00
Follow up, evaluate performance and disclose information	**Principle 6** Strengthen effective risk management and internal control	3.75	3.57	0.674	2.14	5.00
	Principle 7 Ensure disclosure and financial integrity	3.88	4.00	0.712	2.07	5.00
	Principle 8 Ensure engagement communication with shareholders	3.79	3.76	0.622	2.71	5.00
	Total	3.88	3.86	0.369	3.11	4.91

3.2. Measurements and regression models

Market capitalization (LNCAP) value is employed as the dependent variable in the analysis. The independent variables are composed of audit quality (AQ) and

institutional shareholders (INST). Debt to equity ratio (FL) and profitability ratio (PROFIT) function as control variables. Referring to only 95 observations of the dataset, only five variables are employed as recommended by Hair et al. (2018), 15–20 to 1 (observations: independent variables). This is to fit with the issue of generalizability and data representativeness. Also, the study intends to use the dataset only for the very first year of the CG Code voluntary disclosure's implementation; otherwise, the disclosure would be replicated and there would be no informative value displayed by the disclosure. The variables and expected signs are documented in **Table 2**.

Table 2. Variables and their expected sign.

Variable	Expected sign	Measurement	Previous studies
Market capitalization (LNCAP)	n/a	Stock price at year-end date times numbers of common shares	Khrawish et al., 2010; Graham et al., 2010; Vernimmen et al., 2022; Pavone, 2019; Al-Afeef, 2020; Farooq et al., 2020; Alshubiri, 2021
Institutional shareholders (INST)	+	The proportion of shares owned by institutional shareholders to total firm shares	Lina and Fub, 2017; Ngakan and Marcellia, 2021; Afifa and Haniah, 2021a.
Audit Quality (AQ)	+	Audit fees divided by total assets	IFAC, 2017; Kneche et al., 2013
Firm leverage (FL)	−	Debt to equity	Pavone, 2019; Al-Afeef, 2020
Profitability (PROFIT)	+	Profit (loss) before tax to total assets	Pavone, 2019; Al-Afeef, 2020).

Below are the multivariate regression models which assess the influence of independent variables on firm value (market capitalization) and test the devised hypotheses:

Hypothesis 1: Audit quality is positively associated with firm value.

$$\text{LNCAP}_i = \beta_0 + \beta_1 AQi + \beta_2 \text{FL}_i + \beta_3 \text{PROFIT}_i + \varepsilon_i \quad (1)$$

Hypothesis 2: Institutional shareholders are positively associated with firm value.

$$\text{LNCAP}_i = \beta_0 + \beta_1 \text{AQ}_i + \beta_2 FL_i + \beta_3 PROFIT_i + \beta_4 INST_i + \varepsilon_i \quad (2)$$

Hypothesis 3: Institutional shareholders moderate the association between audit quality and firm value.

$$\text{LNCAP}_i = \beta_0 + \beta_1 \text{AQ}_i + \beta_2 FL_i + \beta_3 PROFIT_i + \beta_4 INST_i + \beta_5 (AQ_i \times INSTi) + \beta_4 + \varepsilon_i \quad (3)$$

4. Data analysis and results

4.1. Descriptive statistics

Descriptive statistics for the variables are shown in **Table 3** and **Table 4**. **Table 3** reveals audit firm types and indicated here is that 84.21% of audit firms are Big 4, followed by local firms at 12.63% and non-Big 4 international firms of 3.16%, respectively. The Table also indicates an audit fee range. The majority of audit firms (70.53%) charge their clients around 1 – 5 million baht per year, followed by 5 – 10 million baht (14.74%), more than 10 million baht (12.63%) and less than 1 million

baht (2.10%), respectively. The mean value of audit fees is 7.05 million baht. **Table 4** illustrates that the average audit quality (audit fees to total assets) is 0.029 with the minimum of 0.001 and maximum of 0.190. Institutional shareholders hold common shares at 23.181% on average, ranging from 0.060% to the maximum of 87.740%. Lastly, the average firm value measured by the natural logarithm of market capitalization (LNCAP) is 9.116 ranging from 6.447 to 13.074.

Table 3. Types of audit firms and audit fee.

Audit firm types	Frequency	%	Audit fee range	Frequency	%
Big 4	80	84.21	< 1 MB	2	2.10
International (Non-Big 4)	3	3.16	1–5 MB	67	70.53
Local firm	12	12.63	5–10 MB	14	14.74
Total	95	100.00	> 10 MB	12	12.63
			Total	95	100.00
			MB = million Thai baht		

Table 4. Descriptive statistics.

	Variables	Mean	Median	SD	Minimum	Maximum
Dependent	Market Capitalization	9.116	8.857	1.551	6.447	13.074
Independent	Audit Quality	0.029	0.010	0.053	0.001	0.190
Moderator	Institutional shareholders	23.181	15.100	24.197	0.060	87.740
Control	Firm Leverage	0.465	0.475	0.216	0.042	0.894
	Profitability	0.074	0.057	0.075	−0.061	0.506

4.2. Data validity and reliability

Before proceeding to the multivariate analysis, regression assumption tests are performed. Initially, Mahalanobis statistical technique (Bhattacharjee and Tapabrata, 2019) is used to observe outlier concern. Mean-Centering (Dalal and Zickar, 2012) is employed to reduce multicollinearity problem, especially the interaction term of predictor and moderating variables. Variable correlations are illustrated in **Table 5**. The analysis found the highest simple correlation between audit quality and firm leverage exists at −0.497, p-value < 0.05, which means that there is no multicollinearity problem (Bryman and Cramer, 1997). Also, **Table 6** shows VIF ranging from 1.137–1.756, close to 1. This also confirms that multicollinearity is not a concern (Neter et al., 1989). The analysis suggests that multicollinearity among the variables does not interrupt the regression analysis results. **Table 5** indicates that the dependent variables (LNCAP) negatively correlate to audit quality (AQ), while they positively correlate to institutional shareholders (INST) and firm leverage (FL). However, it is found that there is no significant correlation between market capitalization and profitability (PROFIT).

Table 5. Correlation matrix of variables.

Variable	AQ	INST	FL	PROFIT	LNCAP
AQ	1				
INST	−0.298**	1			
FL	−0.497**	0.296	1		
PROFIT	0.154	−0.065	425	1	
LNCAP	−0.509**	0.335**	0.298**	0.054	1

Notes **$p < 0.05$.

4.3. Regression results and analysis

Due to the fact that the study intends to use only the first year of CG Code voluntary disclosure, time-series, cross-sectional time data and regression assumptions are not much concern. The analysis results are shown in **Table 6.** Model I reveals that audit quality has a negative impact on firm value. This finding does not support Hypothesis 1 and does not agree with the agency theory and auditor inspired confidence theory; however, this result agrees with previous studies by Afifa et al., 2021; Yolandita and Cahyonowati, 2022. Possible explanations are that the companies in this study are listed companies which fully implement the CG Code voluntary disclosures as recommended by the OECD. These businesses have good corporate governance practices. Therefore, audit quality may not be deemed necessary to investors when making investment decisions. On the opposite, a high-quality audit firms always charge higher fees, meaning that higher costs would lower a firm's profit, reduce the stock price, and then lower the firm's market value. Therefore, audit quality negatively affects firm value. This explanation is backed up by the study of Xin (2020) and Gunn et al. (2019). Furthermore, investors consider the quoted companies as paying premium audit fees because the inference is that their stocks are at high risk. Therefore, investors' demand for companies' shares tends to decrease. On the other hand, investors are more likely to buy stocks when audit fees are lower (i.e., low-risk companies). The implication of this result is that investors should be careful about companies with high audit fees when investing in their stocks. The empirical evidence shows that higher audit fees reflect company risk. As a result, the stock price decreases as does the firm's market value. Regulators should be alert to those companies with high audit fees as they are likely to be at high risk.

Institutional shareholders were designated as a main effect predictor in Model II referring to hypothesis 2. The analysis shows that institutional shareholders are positively linked to firm value. The findings suggest that institutional shareholders positively affect firm value ($B = 0.012$, $p < 0.05$), accounting for approximately 3.1% of incremental variance in support for firm value above the main effects of audit quality and the control variables as shown in Model I. Thus, hypothesis 2 is supported. In addition, the result is backed up by institutional theory. Furthermore, this result is in line with the study by Lina and Fub (2017); Ngakan and Marcellia (2021); Saengchote and Sthienchoak (2021). This is because institutional shareholders always search for better business operating conditions, good corporate governance practices, financial positions, and operational results. When institutional shareholders get these positive signals, they decide to invest in the stocks that are of interest to institutional

investors. However, based on the scandal mentioned in the introduction section, the proportion of institutional shareholders is quite high before the scandal breaks down. The implication of this finding is that retail investors should scrutinize the institutional shareholders with caution. Although, high proportion of institutional shareholders are likely to increase stock prices, retail investors should take the information into consideration whether to invest or not. Furthermore, regulators should carefully observe this extraordinary event by noticing the abnormal proportion of institutional shareholders to the publics.

Further, hypothesis 3 proposes that the influence of audit quality on firm value is moderated by institutional shareholders as shown in Model III. It is revealed here that audit quality negatively and significantly affects firm value ($B = -1.353$, $p < 0.01$). Curiously, the regression coefficient for the multiplied audit quality with institutional shareholders is statistically and significantly negative ($B = -0.026$, $p < 0.05$), and accounts for approximately 4.8% of the incremental variance in support for firm value above the main effects of audit quality and institutional shareholders, and the control variables. The results confirm that institutional shareholders moderate the influence of audit quality on firm value. Thus, hypothesis 3 is supported and also supported by the study of KhosroKhah (2018); Li and Wang (2022).

Furthermore, according to the firms used in this study fully comply with the CG Code, the influence of audit quality on firm value becomes more negative and stronger as the proportion of institutional shareholders increases. This phenomenon is considered from the point of view of institutional shareholders who analyze or evaluate the value of ordinary shares for those companies listed on the SET as fully adhering to the CG Code. They are firms with good corporate governance practices in place. Lower audit fees reflect the company's low risk status, so it is preferable for institutional shareholders. Thus, having more institutional shareholders will lead to improved firm value. Specifically, the lowest level of audit fees and the highest level of institutional ownership will result in the highest firm value. This phenomenon decreases as the audit fees become more expensive. However, if the audit fee is higher than the indifference point, institutional shareholders consider such companies to be high risk. Consequently, the business value decreases. The implication of this finding is that in order to increase market capitalization (i.e., stock price) institutional shareholders should invest in companies not only under a good corporate governance scheme, but also under low risk which is evidenced by low audit fees. This is to show the public, especially investors and auditors, that the company is in good condition and remain sustainability.

Lastly, the analysis shows that a company enjoying better profitability is more likely to have a higher stock price and higher market capitalization. This means profitability information is still important information when buying stocks. The implication of this result suggests that management should pay attention to their company's operating results because it is fundamental to highlight the firm's viability and sustainability well into the future.

Table 6. Multivariate regression results.

Variables	Model I			Model II			Model III		
Dependent: Market Cap (LNCAP)	B(t)	Beta	p-value	B(t)	Beta	p-value	B(t)	Beta	p-value
(Constant)	8.338	0.001***		8.496	0.001***		8.615		0.001***
	(17.642)			(18.031)			(18.762)		
Main effect									
AQ	−1.129	−0.464	0.001***	−1.039	−0.428	0.001***	−1.353	−0.557	0.001***
	(−4.550)			(−4.194)			(−5.030)		
Control variable									
FL	1.056	0.147	0.189	0.753	0.105	0.348	0.239	0.033	0.766
	(1.323)			(0.943)			(0.299)		
PROFIT	3.862	0.188	0.057*	3.630	0.177	0.069*	3.652	0.178	0.060*
	(1.927)			(1.839)			(1.908)		
Moderator effect									
INST				0.012	0.188	0.045**	0.010	0.162	0.077*
				(2.030)			(1.790)		
Interaction terms									
AQ × INST							−0.026	−0.245	0.011**
							(−2.594)		
Model summary									
R Square	0.290			0.321			0.369		
Adj.R^2	0.267			0.291			0.334		
R Square Change				0.031			0.048		
VIF	1.226–1.590			1.137–1.648			1.152–0.756		
F-statistics	12.409***			4.119**			6.728**		

Notes ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$; n = 95 for all models, t statistics in parentheses.

4.4. Further analysis of the moderating role of the institutional shareholders

The PROCESS macro for SPSS by Hayes (2012) was applied to identify the conditional impacts of audit quality on firm value at different levels of institutional shareholders as shown in **Table 7**. The interaction effects between audit quality and institutional shareholders are: 1) when institutional shareholders are at a low level (one standard deviation lower than the mean), the interaction effect is negatively insignificant at a level of .05 (p = 0.0057) with a coefficient of −0.7507; 2) when institutional shareholders are at a moderate level (the mean value) and at a high level (one standard deviation above the mean), the interaction effect is negatively significant at a level of 0.01 with a coefficient of −1.3535 and −1.9843, respectively. Thus, the effect of audit quality on firm value was moderated by institutional shareholders, such that the effect is negative and stronger when the proportion of institutional shareholders increases.

Table 7. Conditional effects of audit quality on firm value at different levels of institutional shareholders. Output from PROCESS macro for SPSS.

Test (s) of highest order unconditional interaction (s):						
X*W	R2-change 0.0477	F 6.7275	df1 1.0000	df2 89.0000	*p*-value 0.0111	
Focal predict: MAQ (X) Mod var: M_INST (W)						
Conditional effects of the focal predictor at values of the moderator (s):						
M_INST	Effect	se	t	p	LLCI	ULCI
−23.1214	−0.7507	0.2648	−2.8349	0.0057	−1.2769	−0.2245
0.0000	−1.3535	0.2691	−5.0301	0.0000	−1.8881	−0.8188
24.1972	−1.9843	0.4364	−4.5469	0.0000	−2.8514	−1.1172

To demonstrate the conditional impacts of audit quality on firm value at the 3 levels of institutional shareholders—high, moderate, and low—the graph was plotted as shown in **Figure 2**. The interaction effect between institutional shareholders and audit quality leads to a decrease in firm value when institutional shareholders at the high level are greater than the moderate and the low level, respectively. It is obvious that higher audit quality leads to a decline in firm value when institutional shareholders are at a high level more than when they are at a moderate level, and at a low level. The conditional effect of audit quality on firm value when institutional shareholders are at a high, moderate, and low level equates to −1.9843, −1.3535, and −0.7507, respectively.

When institutional shareholders are at high, medium, low level, where audit quality is at one standard deviation below the mean (AQ = 0.0025), firm value is equal to 10.5075, 9.8564, 9.2342, where audit quality is at the mean (AQ = 0.6379), firm value is 9.2485, 8.9976, 8.7579, and where audit quality is at one standard deviation above the mean (AQ = 1.2763), firm value is at 7.9818, 8.1336, 8.2786, respectively. Interestingly, there is an indifference point that occurs when audit quality (fees) is about 1.05. At this point, firm value is the same at about 8.4 regardless of the level of institutional shareholders. Beyond the indifference point, a higher level of institutional shareholders leads to diminished firm value, such that when institutional shareholders are at a high level, firm value is lower than when there is a moderate and low level of institutional shareholders.

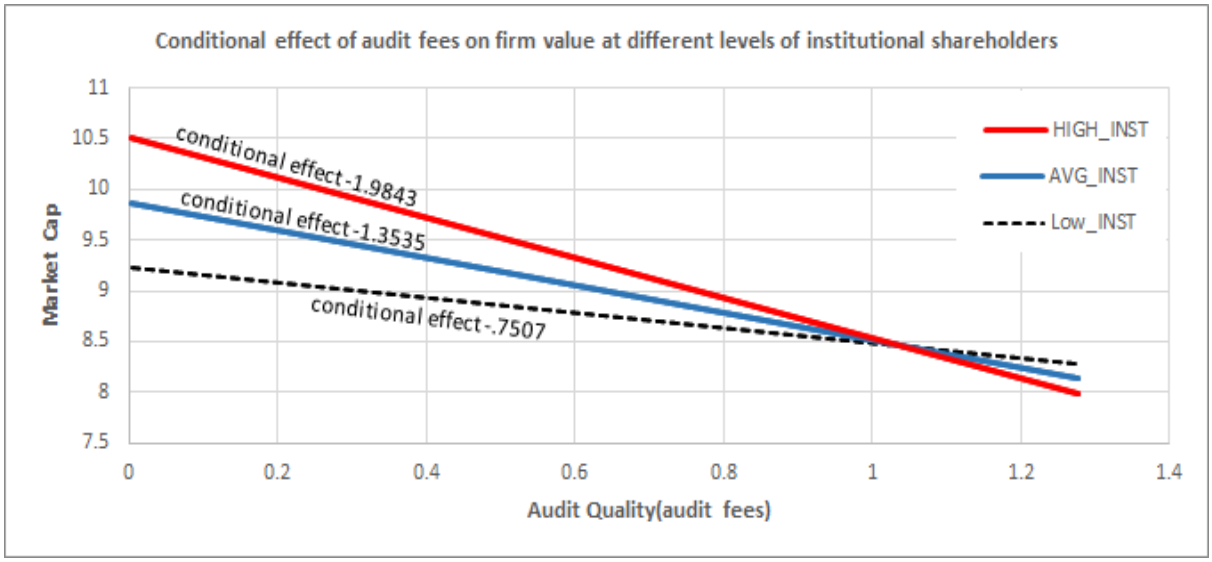

Figure 2. Conditional effects of audit quality on firm value at different levels of institutional shareholders.

5. Conclusion

The study explores the link between audit quality and firm value when moderated by institutional shareholders. More critically, it scrutinizes the moderating effect of institutional shareholders on the relationship between audit quality and firm value. The dataset includes the 95 quoted companies, which fully implement the OECD-recommended CG Code of voluntary disclosure, on the Stock Exchange of Thailand. The contributions of the findings are three folds. Firstly, show that audit quality (audit fees) has a negative impact on firm value. This means that if audit fees are higher, market capitalization is more likely to be lower. Secondly, the study also finds that when institutional shareholders were designated as a main effect predictor of firm value, the analysis shows these shareholders are positively associated with market capitalization. This means the proportion of institutional shareholders increase, market capitalization is more likely to increase. Thirdly, when adding the interaction term between audit quality and institutional shareholders to the analysis, the result shows a significant negative impact on the association between audit quality and firm value. In addition, the negative effect of audit quality on firm value is stronger in firms with higher level of institutional ownership. This means that institutional shareholders enhance the relationship of audit quality and market capitalization.

Limitations and further studies

Finally, the analysis realizes the limitations of this study. The study intentionally chose the very first year of the CG Code's adoption. If the analysis employs more years, the application of the CG Code in later years by other companies may not reflect the truth of the analysis results. However, for the purpose of generalization, longitudinal datasets should be considered in further study. In addition, the factors influencing market capitalization tend to change all the time. Therefore, new factors influencing market capitalization should be introduced. Both company information including financial ratios and outside information including economic indicators (i.e., GDP, Income per capita), stock exchange index, interest rate should be used in future

analyses. Finally, the study should further examine audit quality in terms of audit risk, auditor independence, audit tenure, audit firm type (Big4 and non-Big4) and auditor characteristics, such as audit skills, knowledge, experience, quality monitoring practices, auditor-audit firm relationships, client relationships, and number of companies the auditor is auditing. It should also examine additional variables that may affect performance, such as the shareholder structure of management and institutional investors, which serve as proxies for good corporate governance mechanisms.

Author contributions: Conceptualization, WN, ST and WB; methodology, WN and ST; software, WN; validation, WN, ST and WB; formal analysis, WN; investigation, WN and WB; resources, WN; data curation, WN, ST; writing—original draft preparation, WN; writing—review and editing, ST and WB; visualization, ST and WB; supervision, ST and WB; project administration, ST and WB; funding acquisition, WN. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: The authors declare no conflict of interest.

References

Afifa, M. A., Saleh, I., Haniah, F. (2021). Direct and Mediated Associations Among Ownership Structure, Cash Holdings and Firm Value: The Case of Jordanian Insurance Firms. Vision: The Journal of Business Perspective, 25(4), 471–482. https://doi.org/10.1177/0972262920983989

Abu Afifa, M. M., Saleh, I. H., Haniah, F. F. (2021). Does earnings management mediate the relationship between audit quality and company performance? Evidence from Jordan. Journal of Financial Reporting and Accounting, 21(3), 747–774. https://doi.org/10.1108/jfra-08-2021-0245

Abu Afifa, M. M., Saleh, I., Taqatqah, F. (2023). Mediating influence of earnings management in the nexus between audit quality and company value: new proof from Jordanian market. Accounting Research Journal, 36(2/3), 148–165. https://doi.org/10.1108/arj-03-2021-0102

Abu Afifa, M., Hamad Saleh, I. (2023). Does Audit Quality Affect Companies' Performance?. Ekonomski Pregled, 74(2), 208–232. https://doi.org/10.32910/ep.74.2.2

Abu Afifa, M., Alsufy, F., Abdallah, A. (2020). Direct and Mediated Associations among Audit Quality, Earnings Quality, and Share Price: The Case of Jordan. International Journal of Economics and Business Administration, 8(3), 500–516. https://doi.org/10.35808/ijeba/540

Afza, T., Sajid Nazir, M. (2014). Audit Quality and Firm Value: A Case of Pakistan. Research Journal of Applied Sciences, Engineering and Technology, 7(9), 1803–1810. https://doi.org/10.19026/rjaset.7.465

Al-Afeef, M. (2020). Factors Affecting Market Capitalization: A Practical Study ASE 1978–2019. International Journal of Science and Technology Research, 9(3), 7049-7053.

Al-ahdal, W. M., Hashim, H. A. (2021). 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

Aledwan, B. A., Yaseen, A. A. B., Alkubisi, A. (2015). The Role of Audit Quality on the Relationship between Auditor's and Financial Performance Quality of Selected Cement Firm in Jordan. International Journal of Business and Social Science, 6(12), 138-146.

Alfraih, M. M. (2016). The role of audit quality in firm valuation. International Journal of Law and Management, 58(5), 575–598. https://doi.org/10.1108/ijlma-09-2015-0049

Ben Ali, C., Lesage, C. (2013). Audit pricing and nature of controlling shareholders: Evidence from France. China Journal of Accounting Research, 6(1), 21–34. https://doi.org/10.1016/j.cjar.2012.08.002

Almarayeh, T. S., Aibar-Guzman, B., Abdullatif, M. (2020). Does audit quality influence earnings management in emerging markets? Evidence from Jordan. Revista de Contabilidad, 23(1), 64–74. https://doi.org/10.6018/rcsar.365091

Alshubiri, F. (2021). The stock market capitalisation and financial growth nexus: an empirical study of western European

countries. Future Business Journal, 7(1). https://doi.org/10.1186/s43093-021-00092-7

Bakri, M. A. (2021). Moderating effect of audit quality: The case of dividend and firm value in Malaysian firms. Cogent Business & Management, 8(1). https://doi.org/10.1080/23311975.2021.2004807

Bryman, A., Cramer, D. (1997). Quantitative data analysis with SPSS for windows. London: Routledge.

Chen, J., Dong, W., Li, S., et al. (2016). Perceived audit quality, state ownership, and stock price delay: evidence from China. Asia-Pacific Journal of Accounting & Economics, 25(1–2), 253–275. https://doi.org/10.1080/16081625.2016.1208573

De La Cruz, M. A., Tang, Y. (2019). Owners of the World's Listed Companies. OECD Capital Market Series, Paris. Available online: http://www.oecd.org/corporate/Owners-of-the-Worlds-Listed-Companies.htm (accessed on XX).

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

DeFond, M., Zhang, J. (2014). A review of archival auditing research. Journal of Accounting and Economics, 58(2–3), 275–326. https://doi.org/10.1016/j.jacceco.2014.09.002

Elewa, M. 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. https://doi.org/10.5296/ijafr.v9i1.14163

Farooq, U., Tabash, M. I., Anagreh, S., Khudoykulov, K. (2022). How do market capitalization and intellectual capital determine industrial investment? Borsa Istanbul Review, 22(4), 828–837. https://doi.org/10.1016/j.bir.2022.05.002

Farouk, M. A., Hassan, S. U. (2014). Impact of audit quality and financial performance of quoted cement firms in Nigeria. International Journal of Accounting and Taxation, 2(2), 1–22.

Graham, J., Smart, S. B., Megginson, W. L. (2010). Corporate Finance: Linking theory to what companies do. (3rd ed). Mason, OH: South-Western Cengage Learning.

Gunn, J. L., Kawada, B. S., Michas, P. N. (2019). Audit market concentration, audit fees, and audit quality: A cross-country analysis of complex audit clients. Journal of Accounting and Public Policy, 38(6), 106693. https://doi.org/10.1016/j.jaccpubpol.2019.106693

Hair, J. F., Hult, G. T. M., Ringle, C. M., et al. (2019). Manual de Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed). OmniaScience. https://doi.org/10.3926/oss.37

Iliemena, R., Okolocha, C. B. (2019). Effect of audit quality on financial performance; Evidence from a developing capital market. International Journal of Recent Research in Commerce Economics and Management, 6(3), 191–198.

International Federation of Accountants (IFAC) (2017). ISA 200, Overall Objective of the Independent Auditor, and the Conduct of an Audit in Accordance with International Standards on Auditing. International Auditing and Assurance Standards Board, April 2007, Available online: https://www.ifac.org/_flysystem/azure-private/meetings/files/3393.pdf (accessed on 15 June 2023).

Ivungu, J. A., Anande, K. G., Ogirah, A. U. (2019). Effect of Audit Quality on Firm Performance: A Review of Literature. International Journal of Advanced Academic Research, 5(6), 1–13.

Jebb, A. T., Ng, V., Tay, L. (2021). A Review of Key Likert Scale Development Advances: 1995–2019. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.637547

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

Khosrokhah, M., Salari, H., Amiri, A. (2018). Institutional Ownership Structure; Mediator Role in Related Party Transactions and Corporate Profit Management. Academic Journal of Accounting and Economic Researches, 7(2), 18–24.

Khrawish, H. A., Siam, W. Z., Jaradat, M. (2010). The relationships between stock market capitalization rate and interest rate: Evidence from Jordan. Business and Economic Horizons, 2, 60–66. https://doi.org/10.15208/beh.2010.17.

Knechel, W. R., Krishnan, G. V., Pevzner, M., et al. (2012). Audit Quality: Insights from the Academic Literature. Auditing: A Journal of Practice & Theory, 32(Supplement 1), 385–421. https://doi.org/10.2308/ajpt-50350

Kraft, M. E., Furlong, S. R. (2007). Public Policy: politics, analysis, and alternatives, 2nd ed. London: CQ Press.

Kuo, N. T., Li, S., Du, Y. G., et al. (2022). Does individual auditor quality contribute to firm value? Evidence from the market valuation on corporate cash holdings. International Review of Economics & Finance, 79, 135–153. https://doi.org/10.1016/j.iref.2022.02.001

Li, Z., Wang, B. (2022). The influence of foreign institutional investors on audit fees: evidence from Chinese listed firms. Accounting Forum, 1–28. https://doi.org/10.1080/01559982.2022.2071183

Limperg, T., Flint, D., Bak, G. G. M. (1985). The Social Responsibility of the Auditor: A Basic Theory on the Auditor's Function.

Limperg Institute.

Lin, Y. R., Fu, X. M. (2017). Does institutional ownership influence firm performance? Evidence from China. International Review of Economics & Finance, 49, 17–57. https://doi.org/10.1016/j.iref.2017.01.021

Neter, J, Wasserman, W., Kutner, M. H. (1989). Applied linear regression models (2nd ed.) Homewood, III: Richard D. Irwin.

Kutha, N. M., & Susan, M. (2021). Institutional Ownership, External Auditor Reputation, Financial Leverage, and Earnings Management. Journal of Economics and Business, 4(1). https://doi.org/10.31014/aior.1992.04.01.323

Pavone, P. (2019). Market Capitalization and Financial Variables: Evidence from Italian Listed Companies. International Journal of Academic Research in Business and Social Sciences, 9(3). https://doi.org/10.6007/ijarbss/v9-i3/5802

Phan, T. T. H., Lai, L. A., Le, T. T., et al. (2020). The impact of audit quality on performance of enterprises listed on Hanoi Stock Exchange. Management Science Letters, 217–224. https://doi.org/10.5267/j.msl.2019.8.001

Saengchote, K., Sthienchoak, J. (2021). The Role of Institutional Investors in Thai REITs. Chulalongkorn Business Review, 43(1), 38–58.

Salehi, M., Zimon, G., Hashim, H. A., et al. (2022). Accounting Quality and Audit Attributes on the Stock Price Crashes in an Emerging Market. Risks, 10(10), 195. https://doi.org/10.3390/risks10100195

Scott, W. R. (2004). Institutional theory. In: Ritzer G. (editor). Encyclopedia of Social Theory. Thousand Oaks, CA: Sage.

Sim, C. H., Hla, D. T., Md.Isa, A. H. (2016). Practicing FRS and Audit Quality Support Financial Success of Construction Firms in Malaysia. Unimas Review of Accounting and Finance, 1(1). https://doi.org/10.33736/uraf.290.2016

Securities Exchange Commissions (SEC). (2017). Corporate Governance Code for listed companies 2017. Available online: https://www.sec.or.th/TH/Documents/CompanyHandbooksandGuidelines/CGcode2560_th.pdf (accessed on 12 June 2022).

Stock Exchange of Thailand (SET). (2023). STARK News. Available online: https://www.set.or.th/th/market/product/stock/quote/STARK/news (accessed on 31 July 2023).

Tihanyi, L., Devinney, T. M., & Pedersen, T. (2012). Introduction to Part II: Institutional Theory in International Business and Management. Advances in International Management, 33–42. https://doi.org/10.1108/s1571-5027(2012)0000025009

Vernimmen, P., Quiry, P., Fur, Y. L. (2022). Corporate Finance: Theory and Practices (6th ed.). John Wiley & Sons.

Wallace, W. (1980). The economic role of the auditor in free and regulated markets: A review. Research in Accounting Regulation, Open education Resources.

Ye, X. (2020). Literature Review on Influencing Factors of Audit Fees. Modern Economy, 11(02), 249–260. https://doi.org/10.4236/me.2020.112022

Yolandita, A. A., Cahyonowati, N. (2022). The effects of audit quality on firm value Indonesian financial service sectors. Diponegoro Journal of Accounting, 11(1), 1–8.

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, 22, S200–S212. https://doi.org/10.1016/j.bir.2022.08.011