



The Relationship between Board Composition and Audit Quality:  
A Case Study of Thai Listed Companies  
ความสัมพันธ์ระหว่างองค์ประกอบคณะกรรมการบริษัทและคุณภาพการสอบบัญชี:  
กรณีศึกษาของบริษัทจดทะเบียนในประเทศไทย

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*Article History*

Receive: April 1, 2024

Revised: April 23, 2024

Accepted: April 26, 2024

**บทคัดย่อ**

หลังจากเหตุการณ์อื้อฉาวทางการเงินทำให้บทบาทหน้าที่ของคณะกรรมการบริษัทในการกำกับดูแลได้รับความสนใจเพิ่มมากขึ้นจากหน่วยงานกำกับดูแล นักลงทุน และผู้มีส่วนได้เสียอื่นๆ หลักการกำกับดูแลกิจการที่ดีของประเทศไทยได้กำหนดให้คณะกรรมการบริษัทติดตามโครงสร้างและองค์ประกอบของคณะกรรมการเพื่อเพิ่มความมั่นใจในประสิทธิภาพการกำกับดูแลของคณะกรรมการบริษัท บทความวิจัยนี้ศึกษาความสัมพันธ์ระหว่างองค์ประกอบคณะกรรมการบริษัทและคุณภาพการสอบบัญชี กลุ่มตัวอย่างของการศึกษาคือบริษัทจดทะเบียนในประเทศไทยที่ไม่ได้อยู่ในอุตสาหกรรมการเงินระหว่างปีพ.ศ. 2561-2565 โดยข้อมูลเก็บจากเว็บไซต์บริการข้อมูลของตลาดหลักทรัพย์แห่งประเทศไทยและเว็บไซต์ของบริษัท จำนวนทั้งสิ้น 1,402 บริษัท (firm-year observations) มาวิเคราะห์ทางสถิติโดยใช้วิธีการวิเคราะห์โมเดลสมการโครงสร้าง ผลการศึกษาพบว่า องค์ประกอบคณะกรรมการบริษัทมีความสัมพันธ์เชิงบวกกับคุณภาพการสอบบัญชี ซึ่งสะท้อนให้เห็นว่าเมื่อการกำกับดูแลกิจการเป็นไปอย่างมีประสิทธิภาพส่งผลให้การสอบบัญชีเป็นไปได้อย่างมีประสิทธิภาพ อย่างไรก็ตาม ประสิทธิภาพในการกำกับดูแลและการสอบบัญชีมีความผันผวนได้ตามขนาดของบริษัทและขนาดของสำนักงานตรวจสอบบัญชี หน่วยงานกำกับดูแลอาจพิจารณาปัจจัยเหล่านี้เพิ่มเติมในการปรับปรุงหลักการกำกับดูแลกิจการที่ดี

**Keywords :** องค์ประกอบคณะกรรมการบริษัท ; คุณภาพการสอบบัญชี ; การกำกับดูแลกิจการ ; รายการคงค้างโดยดุลยพินิจของฝ่ายบริหาร ; ประเทศไทย

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## ABSTRACT

A board of directors is placed in the spotlight as corporate financial statements come under greater scrutiny from regulators, investors, and other stakeholders after the occurrence of financial scandals. To strengthen board effectiveness, the Thailand corporate governance code requires the board to review the board structure in terms of size and composition. This study examined the relationship between board composition and audit quality. The sample of this study was non-financial listed companies in Thailand during the period of 2018 to 2022. The data was collected from SETSMART and a company's website for 1,402 companies as firm-year observations. The data was analyzed using SEM. The findings revealed that board composition has a positive relationship with audit quality. As corporate governance is effective; it promotes audit quality effectively. However, the effect of board composition on audit quality may vary depending on company size and audit firm size. Regulators may consider additional factors to improve the good corporate governance principle.

**Keywords :** Board Composition ; Audit Quality ; Corporate Governance ; Discretionary Accruals ; Thailand

## Introduction

The credibility of financial statements has been extensively scrutinized for decades since the occurrence of financial scandals as in both global cases (e.g., Enron and Wirecard) (Velte, 2023) and in Thailand (e.g., Stark). These scandals have raised a demand for high quality financial information to support the economic decision making of stakeholders. Regulators around the world attempt to minimize stakeholders' concerns by increasing reliability and integrity of financial statements from stakeholders' perspective and enhancing stakeholders' trust. One of the most efficient tools that improves stakeholders' confidence is the corporate governance system. Corporate governance is introduced as a necessary mechanism to separate ownership and control mechanisms, to reduce the agency cost and align management interests with those of stakeholders. A good corporate governance system can ensure that management exercises their power for the best interests of corporate stakeholders, and corporate financial statements comply with accounting standards to maintain the high quality of financial statements (El Diri, Lambrinoudakis, and Alhadab, 2020 ; Ha, 2022 ; Ludwig and Sassen, 2022 ; Velte, 2023).

Board composition is one of the corporate governance mechanisms to ensure the quality of financial statements (Li, Crook, Andreeva and Tang, 2021). In general, the board consists of persons who are knowledgeable and competent in drawing up, for corporate purposes, and collaborating with management to develop strategies, policies, and risk management. When composition is properly structured, monitoring processes can be improved (Arayssi, Jizi and Tabaja, 2020). Subsequently, the greater quality of financial reporting is likely to be achieved and high demand for good assurance quality can be observed (El Diri, Lambrinoudakis, and Alhadab, 2020). In other words, monitoring and controlling functions are to maintain the best interests of stakeholders and the board's reputation (Ghuslan, Jaffar, Mohd Saleh, and Yaacob, 2021). Thus, management's likelihood to make accounting adjustments for opportunistic reasons is a constraint (Fan, Radhakrishnan and Zhang, 2021).

External audit is another mechanism to emphasize the quality of financial statements by allowing an external independent party to verify the validity of financial statements (Chowdhury and Eliwa, 2021). However, the quality of external audit depends on various factors such as professionalism and skepticism, audit team characteristics, and audit firm size (Alareeni, 2019 ; Cameran, Campa and Francis, 2022). Further, external audit processes require incorporation between the board and the audit team members. Audit



committees, as a representative of the board, discuss with the external audit team about internal control issues and monitoring systems. They also discuss changes in accounting policy, accounting adjustments, and management letters. Subsequently, the process can lead to good audit quality.

The relationship between board composition and audit quality has been examined by prior research in different settings (e.g., Alhababsah and Yekini, 2021 ; Ha, 2022; Orazalin, 2020 ; Usman, Nwachukwu, and Ezeani, 2022), yet the results are inconsistent. There are various possible factors influencing inconsistent findings including the use of single indicators as a measure of complex corporate governance construct (Kim et al., 2023). However, there is limited evidence investigating the impact of a set of board compositions on the audit quality, especially in the setting of emerging markets with weak accounting regime and investor protection such Thailand market (Uthayapong, 2020). To provide a more extensive perspective, this study aims to examine the relationship between board composition and audit quality using a comprehensive set of indicators. In addition, this study also examines the moderating role of company size and audit firm size. According to agency theory, members of the board and the audit team are motivated to promote the quality of financial statements to maintain the best interests of stakeholders. Financial statements are likely to comply with accounting standards. Hence, this study expects a positive relationship between board composition and audit quality. Unlike most previous studies in this area, Structural equation models (SEM) are employed and executed to test hypotheses. The results obtained from a sample of 1,402 firm-year observations of all non-financial companies listed in Thailand support our hypotheses. The important role of board composition on audit quality is highlighted.

The remainder of this paper is organized as follows. The next section provides literature review and hypothesis development. In section three, research design and sample selection are discussed. Results are presented in section four, followed by the conclusion.

## Literature Review

This section discusses the theory that motivates this study, including previous studies relating to corporate governance, especially board composition, audit quality and hypothesis development.

### Theoretical Foundation

Agency theory is employed in this study to explain and understand the relationship between corporate governance function and audit quality, following prior studies (e.g., Habib, Bhuiyan, Huang, and Miah, 2019 ; Saidu and Aifuwa, 2020 ; Velte, 2023 ; Vitolla, Raimo and Rubino, 2020). Since the separation of ownership and management occurs in the company, information asymmetries arise due to the delegation of work from shareholders (the principal) to company's management (the agent) (Vitolla, Raimo, and Rubino, 2020). When one party has more information regarding an issue, than the other in the contract, it is more likely to create moral hazards and self - interested behavior resulting in conflict of interest and agency costs to the company. In order to minimize agency conflicts and reduce these costs, strong corporate governance led by the board of directors (Habib et al., 2019) is implemented as control and monitoring functions such as internal audit processes and procedures (Alzeban, 2020). In doing so, this is most likely to result in the improvement of financial statements quality (Kaawaase, Nairuba, Akankunda and Bananuka, 2021 ; Lennox and Wu, 2022 ; Janjarasjit, Uthayapong, and Adthajak, 2023) and greater audit quality (Elliott, Fanning, and Peecher, 2020 ; Uthayapong, 2020). In this sense, the higher quality of financial statements and auditing provides useful information to support stakeholders' decision making and is most likely to increase the favor of shareholders. Therefore, on the basis of agency theory, there is an association between corporate governance and financial statements quality, thus audit quality.

## Hypotheses Development

The definition of audit quality has various perspectives. This study follows the study of Harris and Williams (2020) to define audit quality as the ability of an external auditor, who is an independent third party with professional capability and skepticism, to detect errors of accounting systems and reports and to disclose those breaches. The auditor must exercise his or her professional judgments and provide an audit opinion based on the audit evidence that is obtained by audit team members throughout the audit process and procedures (Uthayapong, 2020). The auditor generally collects and identifies evidence from the company's accounting documents and control systems which have been managed by the management level. Thus, the board of directors is likely to influence the company's control mechanism and governance including the disclosure of financial information.

Board composition is an important function of financial statements quality and audit quality. The board of directors, who are elected by shareholders to protect their own interests, plays an important role in business. The board of directors establishes tone at the top of the company (Ha, 2022), leads an organization and monitors management disclosure (Ha, 2022 ; Arayssi, Jizi and Tabaja, 2020) and enhances strong corporate governance (Kaawaase et al., 2021). Various board's characteristics influence its effectiveness, such as board size and board expertise (Endrikat, De Villiers, Guenther and Guenther, 2021 ; Kalia, Basu and Kundu, 2023). The effective board can help to minimize agency problems (Orazalin, 2020 ; Kalia, Basu and Kundu, 2023) and earnings management (Saona, Muro and Alvarado, 2020). Moreover, prior research finds the impact of board composition on financial statements quality. The study of Velte (2023) highlights that the composition of the board is mainly referred to board independence, board expertise, gender diversity of board, networks, and social ties (Velte, 2023) that influence the quality of financial information disclosure, the quality financial reporting (Kaituko, Githaiga and Chelogoi, 2023). These characteristics are likely to improve audit quality (El Diri, Lambrinoudakis and Alhadab, 2020). Each characteristic of the board is discussed below.

### Board Size and Audit Quality

Prior research investigates the relationship between board size and audit quality. The number of board members positively relates to the greater audit quality in a developing market (Fariha, Hossain, and Ghosh, 2022 ; Saidu and Aifuwa, 2020). It is a result of the dynamic function of corporate governance in that the large board comprises of members with various experiences. The variety in members' experience results in various skills that members can share amongst each other to perform monitoring management. Subsequently, monitoring management performance tends to increase as the board size increases (Cheng, Groyberg, Healy, and Vijayaraghavan, 2021 ; Kalia, Basu and Kundu, 2023). Many numbers of board members also provide greater supervision and decision-making and minimize information asymmetry between shareholders and management. As a result, audit quality tends to be higher (Manna, Sahu and Pandey, 2020). Similar effect of board size on audit quality is observed in Thailand (Janjarasjit, Uthayapong and Adthajak, 2023). It can be concluded that the higher number of board members leads to better audit quality because of the various knowledge and expertise of members.

### Board Expertise and Audit Quality

The financial expertise of board members improves financial statements' quality and thus, audit quality. It is because they are superior in understanding the complexity of financial reporting, especially the audit committees (Nguyen, Ntim and Malagila, 2020). The study of Kaawaase et al. (2021) finds the relationship between board expertise and financial statements quality in Uganda. Kaawaase et al. (2021) state that financial knowledge and monitoring role of board members strengthen company's operations and internal



control that increase quality of financial information such as relevance and faithful representation. Moreover, the study of Huang, Liang, Chang and Hsu (2021) states that the accounting experts of board members are more likely to strengthen corporate governance by enhancing the internal control mechanism. In this sense, the quality of financial statements is likely to be promoted. However, Fariha, Hossain and Ghosh (2022) argue that there is no relationship between board expertise and audit quality in Nigeria because of a small number of financial experts on board. Inadequate financial expertise is less likely to increase audit quality. In the setting of this study, there is limited evidence of the association between board expertise and audit quality.

### **Board Independence and Audit Quality**

Board independence refers to the percentage of outside directors or non-management on the board (Ghuslan et al., 2021). Prior studies state that the outside directors are likely to act aligning with shareholders' interests rather than the management team because of their different incentives. Also, the outside directors are likely to detect fraudulent financial statements (Usman, Nwachukwu and Ezeani, 2022) and earnings overstatement (Fan, Radhakrishnan and Zhang, 2021). The study of Moursli (2020) also finds that strong governance such as the percentage of board independence is likely to limit earnings management in Saudi Arabia.

### **Audit Committees and Audit Quality**

The audit committees (AC) as a key layer of control function of the board. The study by Ha (2022) in Vietnam shows that independence and the size of AC are significantly linked to the level of corporate governance and are likely to influence the higher financial statement disclosure, thus the better financial statement quality. Another study by Hasan, Kassim, and Hamid (2020) investigates AC characteristics which are size, independence, financial expertise, and gender diversity in the Malaysia market. The results find that the financial expertise of AC is likely to promote financial statements quality. It is because AC oversees the director's responsibilities, especially in the accounting and finance functions, that results in improvement of audit quality. The study of Sultana, Singh, and Rahman (2019) suggests that AC characteristics such as AC age and AC tenure increase audit quality because experienced AC acquires higher audit efforts, therefore, audit quality. AC members who have accounting and financial literacy enhance audit quality by overseeing financial statements process (Elliott, Fanning and Peecher, 2020).

The board of directors comprises of board members, members who are experts in accounting and finance, members who are independent, and audit committee members. When the board works together, they all contribute to the effectiveness of corporate governance mechanisms, and thus, examining a board composition as the single indicators may limit the ability to explain board composition (Kim et al., 2023). Therefore, this study views board composition as an essential factor that may affect audit quality. Four characteristics of board composition including board size, board expertise, board independence, and audit committee size are investigated as a comprehensive assessment. Building on prior research, this study posits that board composition may positively relate to audit quality. The following hypothesis is developed.

**Hypothesis 1:** There is a positive relationship between board composition and audit quality.

Further, prior research highlights the effect of company size (e.g., Amalia, Wawo, and Jannah, 2024; Lee and Jeong, 2023) and audit firm size (e.g. Che, Hope and Langli, 2020) on audit quality (Janjarasjit, Uthayapong and Adthajak, 2023). Since audit quality is likely to be affected by these factors, this study also examines the effect of company size and audit firm size on the relationship between board composition and audit quality. The following hypotheses are developed. The hypotheses are developed as:

**Hypothesis 2:** The company size moderates a relationship between board composition and audit quality.

**Hypothesis 3:** The audit firm size moderates a relationship between board composition and audit quality.

## Research Methodology

This section discusses the sample, variables, and research model. A quantitative methodology, both descriptive and inferential statistics, is utilized to investigate the relationship between board composition and audit quality.

### Sample

Sample of this study is all non-financial companies listed in Thailand during the period of 2018 to 2022. The financial information (e.g., total assets, cash flow from operating activities, net income, etc.) is hand-collected from SETSMART. The data of board composition is hand-collected from the website of the Securities and Exchange Commission of Thailand and the listed company's annual report. The initial sample is 1,554 firm-year observations.

### Dependent Variables

This study follows prior research (e.g., Carp and Istrate, 2021; Garcia-Blandon, Argilés-Bosch and Ravenda, 2020 ; Rajgopal, Srinivasan and Zheng, 2021) by using discretionary accruals (DA) as a measure for audit quality. DA is computed as performance-matched abnormal accruals suggested by Kothari, Leone, and Wasley (2005) in year  $t$  for the company  $i$ . The error term from Equation (1) is used as a dependent variable, DA.

$$(TA_{it}/Asset_{it-1}) = \delta_0 + \delta_1(1/ASSET_{it-1}) + \delta_2(\Delta SALES_{it}/Asset_{it-1}) + \delta_3(PPE_{it}/Asset_{it-1}) + \delta_4ROA_{it} + \epsilon_{it} \quad (1)$$

where:

- $TA_{it}$  = total accruals which is calculated by the net income minus cash flow from operating activities ( $NI_{it} - CFO_{it}$ ) in year  $t$  for the company  $i$ ;
- $\Delta SALES_{it}$  = the change in sales which is calculated by a change in sales minus a change in accounts receivable ( $\Delta SALES - \Delta AR_{it}$ ) in year  $t$  for the company  $i$ ;
- $PPE_{it}$  = property, plant and equipment – net in year  $t$  for the company  $i$ ;
- $ROA_{it}$  = return on assets which is calculated by net income divided by total assets in year  $t$  for the company  $i$ ;
- $Asset_{it-1}$  = total assets in year  $t-1$  for the company  $i$ ;
- $\epsilon_{it}$  = error term.

The advantages of using DA as a proxy of audit quality are that it is continuous; so, it can capture subtle variations in quality. Also, DA can reflect restatements of financial statements and issuing of negative internal control reports (Boulhaga, Bouri and Elbardan, 2022). The absolute value of DA is used in the analysis.

### Independent Variable

This study employs confirmatory factor analysis (CFA) approach to obtain board composition factor (BOARD). Following prior studies (e.g., Anyigbah, Kong, Edziah, Ahoto and Ahiaku, 2023 ; Pucheta-Martinez and Gallego-Álvarez, 2020 ; Vitolla, Raimo and Rubino, 2020), board size is measured by the total number



of directors; board expertise is measured by the total number of board members with accounting or finance knowledge; board independence is measured by the total number of board independence; audit committee is measured by the total number of audit committees. Specifically, four items (board size, board expertise, board independence, and audit committee size) are loaded on a single construct, BOARD. CFA approach is appropriate in this study because the items have been proved theoretically to represent the same construct (Kim et al., 2023).

### Moderating Variable

Company size (SIZE) and audit firm size (BIG4) are included in this study as a moderating variable. For SIZE, a company is categorized as large when its total assets are higher than the median value of total assets of all companies in the same industry and categorized as small if otherwise. Companies classified as large are coded as “1” and small are coded as “0”. For BIG4, an audit firm size is categorized as Big4 if it is Deloitte Touche Tohmatsu Jaiyos, EY, PwC Thailand, or KPMG Phoomchai, and small if otherwise. Companies classified as Big 4 are coded as “1” and Non-Big 4 are coded as “0”.

### Control Variable

Consistent with prior research (e.g., Al-Ahdal, Alsamhi, Tabash and Farhan, 2020 ; Kyere and Ausloos, 2021 ; Sattar, Javeed and Latief, 2020), this study controls for company’s financial performance (LOSS) because it has been shown to affect the demand of audit quality. This study measures LOSS using a dummy variable with a company coded as “1” if it has net losses and “0” if otherwise.

### Data Screening

The data is screened for outliers and missing values. One-hundred and forty-one records are outliers, and 11 records contain missing data; so, 152 records are removed from the analysis, leaving 1,402 firm-year observations for the analysis. The final sample for this study is as shown in Table 1.

**Table 1** Industry group distribution

Industry	Frequency	Percentage
Agro and Food	156	11
Consumer Products	110	8
Industrials	244	17
Property and Construction	301	22
Resources	162	12
Services	340	24
Technology	89	6
<b>Total</b>	<b>1,402</b>	<b>100</b>

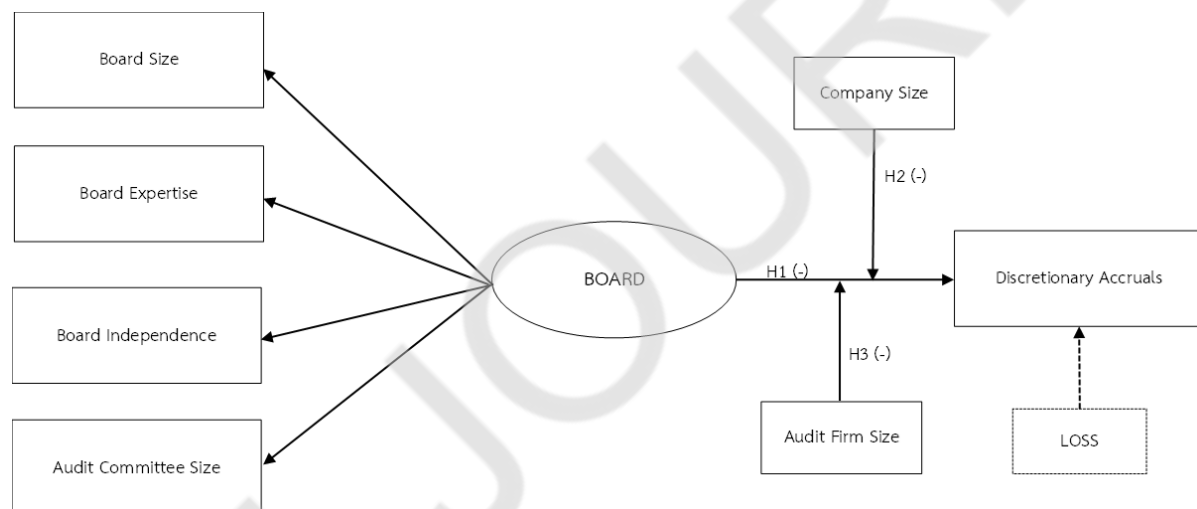
The data is then screened for multicollinearity. A variance inflation factor (VIF) has a value between 1.05 and 1.80, which are lower than the cutoff value of 10.00 (Kline, 2023). Also, the correlation coefficients between variables are lower than 0.60, the cutoff value (Kline, 2023). Therefore, multicollinearity is not an issue in this study. Normal distribution is also examined, and the data appears to be distributed normally. Table 2 presents the descriptive statistics of the variables examined in this study.

**Table 2** Descriptive statistics

Variable	Mean	Median	S.D.	Min.	Max.
DA	0.39	0.32	0.30	0.00	1.37
Board size	10.07	9.00	2.48	5.00	21.00
Board expertise	2.28	2.00	1.21	1.00	8.00
Board independence	4.22	4.00	1.27	1.00	11.00
Audit committee size	3.12	3.00	0.37	3.00	8.00
SIZE	0.50	1.00	0.50	0.00	1.00
BIG4	0.66	1.00	0.48	0.00	1.00

### Research Design

Since DA can reflect management manipulation, the lower value of DA represents the greater audit quality. This study, therefore, expects a negative sign in the relationship between board composition and DA. The following structural equation model is proposed:



**Figure 1** Conceptual Framework

### Results and Discussion

Structural equation models (SEM) are used to execute CFA and test hypotheses. Multiple model fit indices are employed in this study to evaluate the model fit. Following prior research (Hinson and Utke, 2023; Kline, 2023), this study uses comparative fit index (CFI), the root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) to evaluate the model fit. The criteria for a good model fit are as follows:  $CFI \geq 0.90$ ,  $RMSEA \leq 0.08$  and  $SRMR \leq 0.09$  (Hinson and Utke, 2023).

#### Confirmatory Factor Analysis

The measurement model is developed to examine the psychometric properties of BOARD as a latent construct using CFA approach. The model includes a set of board composition manifest variables (i.e., board size, board expertise, board independence, and audit committee size). Dimensionality of the manifest variables is assessed to ensure that each item loads on the hypothesized construct. The data is then tested for reliability and validity. Table 3 illustrates the results of CFA standardized factor loadings.





Table 3 CFA

Manifest Variables	Factor Loadings	p-value
Board size	0.88	0.00
Board expertise	0.25	0.00
Board independence	0.68	0.00
Audit committee size	0.28	0.00

The standardized factor loadings range between 0.25 and 0.88. Board expertise and audit committee size have weak factor loadings. Yet, the four-item construct adequately accounted for sample variance and covariance (CFI = 0.98; RMSEA = 0.08; SRMR = 0.02). In addition, its composite reliability is 0.62 and average variance extracted (AVE) was 0.59. Therefore, it can be concluded that board size, board expertise, board independence, and audit committee size measured board composition with adequate reliability and validity and measurement model misspecification is not an issue (Hinson and Utke, 2023 ; Kline, 2023). Therefore, the four-item construct of BOARD is utilized in this study.

Because the data used in this study is longitudinal, the study needs to ensure that the measurement represents the same construct over time, and the results are not driven by time effects. Following Wang, Ding, Cheng, He, Wang and Yao (2022), measurement invariance testing is executed, and invariance across time is not supported. Therefore, the study constrains factor loadings, intercepts, and residuals to be equal across time.

### Hypotheses Testing

Figure 2 illustrates the result of hypothesis 1 testing. The SEM possesses a good fit (CFI = 0.97; RMSEA = 0.04; SRMR = 0.03).

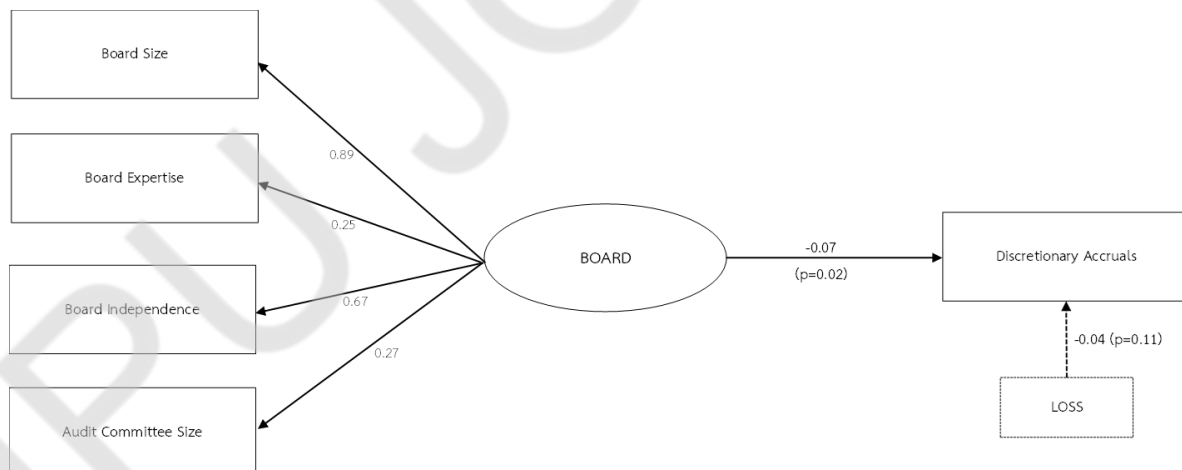


Figure 2 SEM result of hypothesis 1

BOARD has a negative relationship with DA ( $\beta = -0.07$ ; p-value = 0.02), while LOSS does not have a significant relationship with DA in this model ( $\beta = -0.04$ ; p-value = 0.11). The result suggests that discretionary accruals decrease as board composition increases, supporting hypothesis 1.

Since DA can reflect the magnitude of financial statements manipulation and earnings management, decreases in discretionary accruals imply that financial statements are more likely to comply with accounting standards. Board composition can encourage strong corporate governance and strengthen internal control.

The result is consistent with agency theory and prior research (e.g., Elliott, Fanning and Peecher, 2020 ; Kaawaase et al., 2021) in that board of directors consisting of members with complementary skill sets can enhance effectiveness of governance mechanisms and overseeing processes to improve the quality of financial statements. In this sense, the audit quality is greater.

Results of hypothesis 2 testing are presented in Figure 3 for large companies and Figure 4 for small companies. The SEM possesses a good fit (CFI = 0.92; RMSEA = 0.06; SRMR = 0.05). For large companies, BOARD does not have a significant relationship with DA ( $\beta = -0.03$ ; p-value = 0.44). Also, financial performance does not have a significant relationship with DA ( $\beta = -0.04$ ; p-value = 0.36). For small companies, BOARD has a significant relationship with DA in a negative direction ( $\beta = -0.12$ ; p-value = 0.00). Similarly, financial performance has a significant relationship with DA only when the companies are small ( $\beta = -0.12$ ; p-value = 0.00).

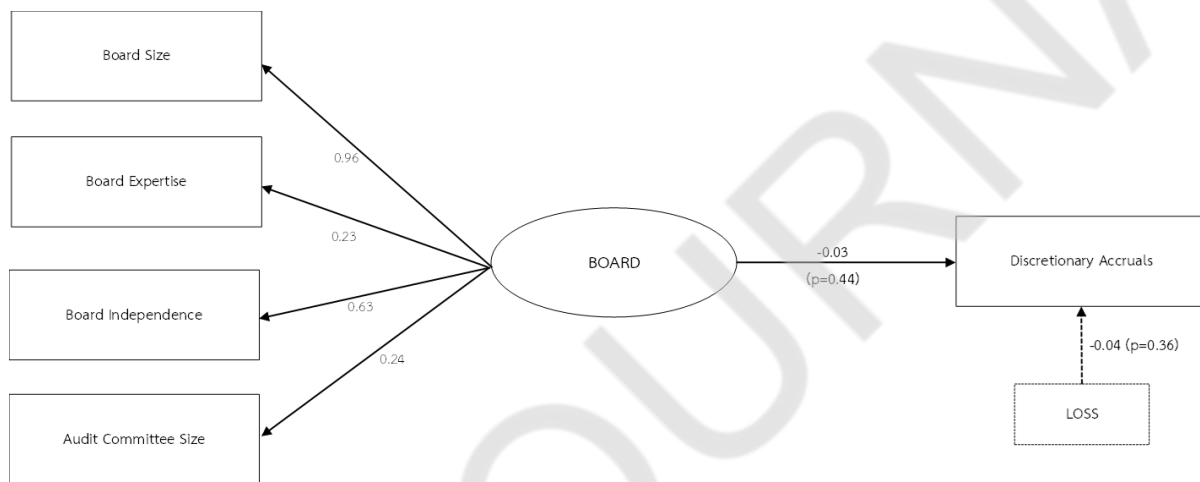


Figure 3 SEM result of hypothesis 2 (large companies)

The results imply that board composition of large companies does not have a significant impact on discretionary accruals, whereas board composition of small companies does. Hypothesis 2 is therefore supported. Company size moderates the relationship between board composition and audit quality.

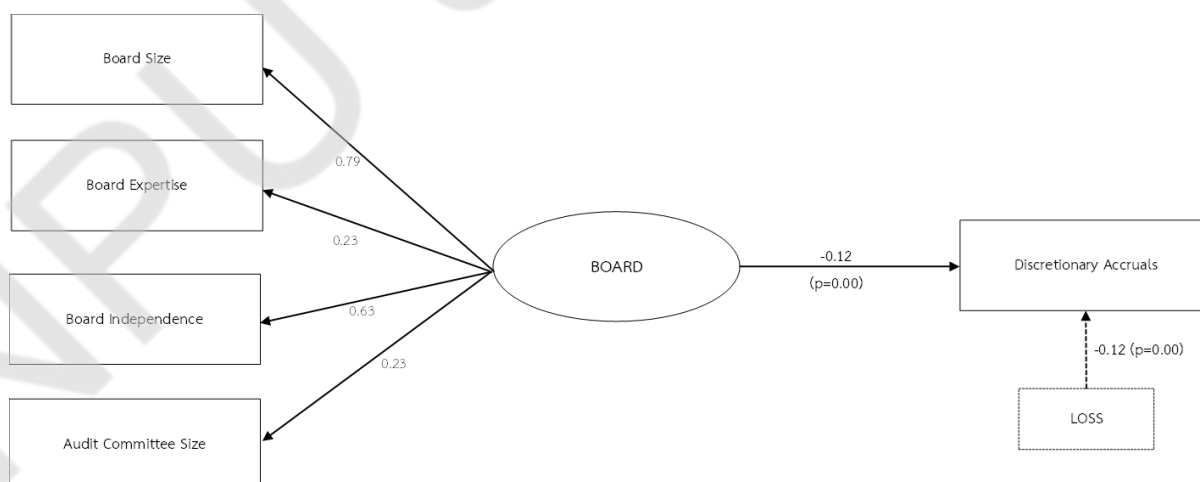


Figure 4 SEM result of hypothesis 2 (small companies)



In Thailand, the larger listed companies have many control mechanisms in improving financial statement quality such as the scrutiny of larger and various stakeholders' interests (Herbert and Agwor, 2021), the complexity of shareholder structure (Herbert and Agwor, 2021) and the reputation of the board capital (Fredriksson, Kiran and Niemi, 2020) that may foster good corporate governance and impact financial statement quality. Thus, the board composition may not be the only major factor in greater audit quality. On the other hand, the small companies in this setting start out as family businesses and rely on the relationship-based economy (Camisón-Zornoza, Forés-Julián, Puig-Denia, and Camisón-Haba, 2020). The key characteristics such as the independence of board members may be a crucial function in strengthening governance processes and control; subsequently, the audit quality improves (Bertrand, Johnson, Samphantharak and Schoar, 2008 ; Moursli, 2020).

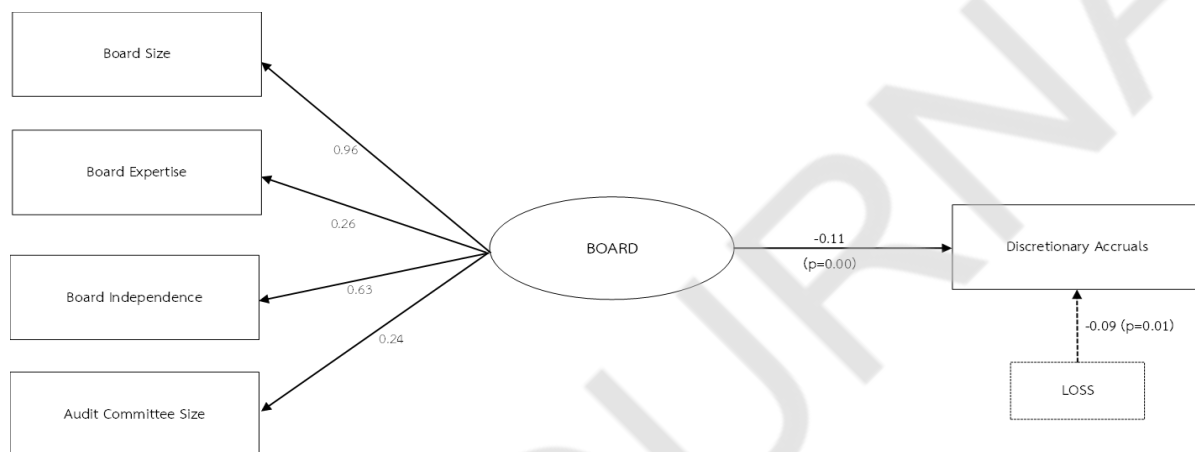


Figure 5 SEM result of hypothesis 3 (audited by Big 4)

For hypothesis 3, the SEM obtains a good fit (CFI = 0.92; RMSEA = 0.06; SRMR = 0.05). The results of hypothesis testing are shown in Figure 5 for companies audited by Big 4 and Figure 6 for companies audited by Non-Big 4. A significant relationship between BOARD and DA is observed when the companies are audited by Big 4 ( $\beta = -0.11$ ; p-value = 0.00). In contrast, Figure 6 shows that BOARD does not have a significant impact on DA when the companies are audited by Non-Big 4 ( $\beta = -0.03$ ; p-value = 0.58). The results reveal that audit firm size plays a moderating role in the relationship between board composition and audit quality. Therefore, hypothesis 3 is supported. In terms of financial performance, it has a significant effect on DA only when the companies are audited by Big 4.

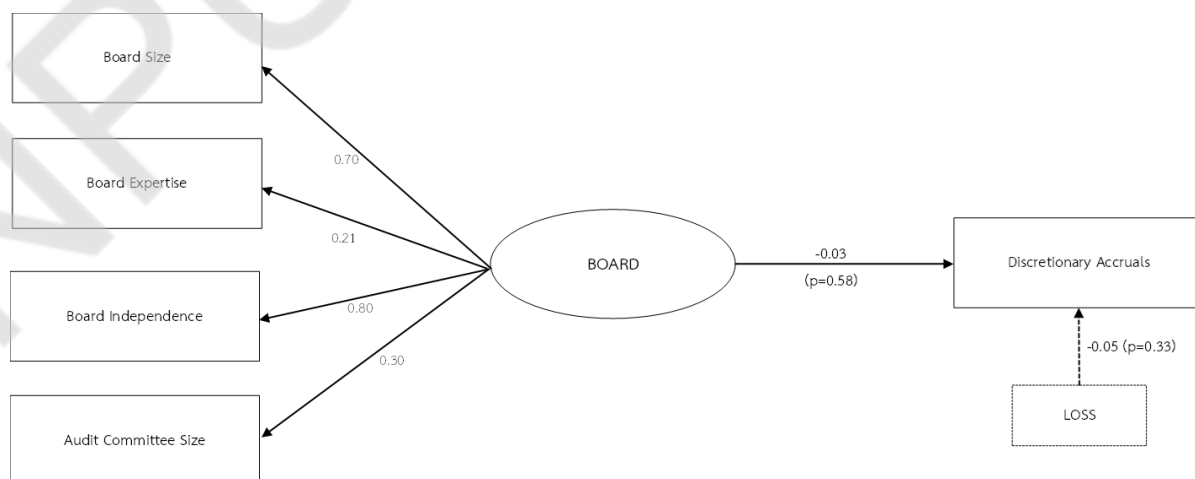


Figure 6 SEM result of hypothesis 3 (audited by Non-Big 4)

Hypothesis 3 testing results imply that audit firm size has a moderating effect on the relationship between board composition and discretionary accruals. When companies are audited by Big 4, board composition can significantly decrease discretionary accruals. Such an effect is not observed when companies are audited by Non-Big4 firms. This means Big 4 is most likely to improve audit quality. The results are consistent with many studies in this area (e.g., Che, Hope, and Langli, 2020 ; Janjarasjit, Uthayapong and Adthajak, 2023 ; Martani, Rahmah, Fitriany and Anggraita, 2021). It is because the larger size of audit firms has better accumulated knowledge and greater audit methodology and audit processes that can constrain manipulations in financial statements then improve audit quality.

A summary of the hypothesis testing results is presented in Table 4.

**Table 4** Summary of hypothesis testing results

Hypothesis	BOARD → DA		LOSS → DA		Hypothesis Testing
	Std. B	p-value	Std. B	p-value	
H1	-0.07	0.02	-0.04	0.11	Supported
H2					
Large companies	-0.03	0.44	-0.04	0.36	Supported
Small companies	-0.12	0.00	-0.12	0.00	
H3					
Audited by Big 4	-0.11	0.00	-0.09	0.01	Supported
Audited by Non-Big 4	-0.03	0.58	-0.05	0.33	

### Conclusion

The purpose of this study is to examine the effect of board composition, as a corporate governance mechanism, on audit quality. The study includes board size, board expertise, board independence, and audit committee size as a board composition. For audit quality, the absolute value of discretionary accruals is used as a proxy. The sample of this study is non-financial companies listed in Thailand from 2018 to 2022. After removing outliers and missing data, 1,402 firm-year observations are analyzed using SEM approach. Further, this study includes company size and audit firm size as moderators, and firm financial performance is included as a control variable. The results show the negative relationship between board composition and discretionary accruals, suggesting that board composition can promote greater quality of financial statements. In this sense, the audit quality is greater. Yet, the relationship between board composition and audit quality may vary depending on company size and audit firm size. In terms of company size, different settings between large and small companies cause corporate governance mechanisms to differ. A complex setting of large companies requires multiple governance mechanisms and not to rely solely on the board of directors, whereas small companies tend to rely on the basic governance mechanisms. Therefore, small companies may pay closer attention to their board composition to ensure effective corporate governance. In terms of audit firm size, large audit firms tend to be equipped with greater knowledge and experience than small audit firms. Greater knowledge and experience allow large audit firms to apply their audit program and audit procedures to the particular sectors and the specific companies. The audit risks can be identified, which is most likely to result in a more effective audit plan. The board of companies that are audited by



small audit firms may need to be active in audit procedures to ensure that audit risks can be evaluated accurately, and audit plans are effective.

### Contributions

The findings from this study provide theoretical contribution in that any implications of agency theory should be done with caution. It is because the board of directors may not always be a good governance mechanism as proposed by agency theory. Company size and audit firm size can play an essential role in the governance mechanism.

This study also provides practical contributions. First, policymakers and regulators may consider requiring the presence of not only some traits of the audit committee but also other board members during the discussion with external audit to ensure the quality of audit and maintain the best interests of corporate stakeholders. Second, small companies might focus on the board selection process to ensure that qualified members are recruited. Lastly, interactions between the board and audit firms are critical to audit quality. A proactive approach may need to be utilized by the companies to promote greater audit quality.

### Future Research

For future research, researchers might equip other perspectives of corporate governance such as other characteristics of the board, ownership structure, agency costs, and incentive mechanisms to emerge the influencing factors of audit quality. Further, the use of other proxies of audit quality such as audit opinions, auditor changes, and restatement might provide a clear view of auditor's outcome. Text analytics can also be utilized to examine audit reports from a different approach and a more comprehensive data that can represent corporate governance mechanisms for a wider period.

### Limitations

Interpretation of the study's findings is subject to limitations. First, this study examines corporate governance from the board composition perspective. Other board characteristics (e.g., board compensation, frequency of board interaction, and quality of information available to the board) may have an impact on audit quality. Second, the findings may be specific to the period of 2018 to 2022 because of the COVID-19 pandemic. The difference timeframe of observations may expand the understanding of corporate governance.

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