

# The Relationship Between The Characteristics Of The Board Of Directors And The Audit Committee With The Disclosure Of Internal Control Information In Thailand's SET 100

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## Abstract

The objective of this research is twofold: 1). to study the characteristics of internal control disclosure, and 2). to analyse the relationship between the characteristics of the board of directors and audit committee with internal control disclosure of companies registered in the Stock Exchange of Thailand. The study utilises data from the annual reports (Form 56-1) between 2016 and 2020 of 415 sample companies. Two research instruments were employed: a checklist for verifying and collecting internal control disclosure characteristics, and an analysis of the board of directors and audit committee characteristics in relation to internal control disclosure using multiple regression analysis.

The research findings reveal the following: 1). Characteristics of Internal Control Disclosure: a). Financial risk reporting data is the most disclosed aspect. b). Responsibility towards the internal control system follows. c). Internal control measures are the least disclosed. 2). Relationships with Board and Audit Committee: a). There is a positive relationship between the size of the board of directors and the audit committee size with internal control disclosure. b). Conversely, companies with the highest executives paired with the chairman of the board tend to disclose less information on internal control. 3). Non-Significant Findings: a). The research did not reveal any relationship between international board of directors, female board of directors, independent directors, financial and accounting executives, audit committee meetings, audit firms, and internal control disclosure.

**Keywords:** Board of Directors, Audit Committee, Disclosure of Internal Control Information

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## 1. Introduction

The importance of internal control systems in organisations is paramount, particularly in light of major financial scandals that have emphasized the need for strong governance structures. These controls are essential for maintaining operational efficiency and protecting an organisation's assets. However, due to the inherent lack of visibility of these control activities to external investors, there is a need for clear disclosure to evaluate management's ability to meet operational goals and avoid wasting resources. The Enron collapse in 2001, which reported a quarterly loss of 618 million dollars and subsequent exposure of manipulated financial reports, dramatically underscored these requirements, leading to a drop in shareholder value from a high of 90 US dollars per share to just a small fraction of that (Sridharan et al., 2002, as cited in Warangkanang Lee Yan et al., 2021).

The Sarbanes-Oxley (SOX) Act was established in 2002 as a result of this event, setting strict standards for corporate governance and financial reporting for companies listed in the US. This includes the requirement for auditors to assess the effectiveness of a company's internal control over financial reporting (Sridharan et al., 2002). Similar regulatory actions have been taken worldwide, with numerous countries developing frameworks to enhance internal control disclosures for listed companies. In Thailand, the Securities and Exchange Commission has taken the initiative to update the guidelines for good corporate governance, bolstering internal control systems for companies listed on the Thai stock market (The Securities and Exchange Commission, Thailand, 2017).

Despite these efforts, Thai companies, particularly those listed on the Stock Exchange of Thailand (SET), continue to grappling with agency problems and conflicts of interest between management and shareholders. This issue, deeply rooted in the agency theory outlined by Jensen & Meckling (1976), Fama & Jensen (1983), and Shleifer & Vishny (1997), highlights the persistent challenge of aligning management actions with shareholder interests. Such misalignments often result in investment losses, emanating from inefficient corporate governance and inadequate internal control systems, which in turn, provide leeway for management malfeasance and unethical practices.

Addressing these challenges necessitates a comprehensive understanding of the internal control disclosure practices and their association with the characteristics of the board of directors and audit committees. This study aims to bridge the gap in literature by incorporating 11 independent variables that examine the nature of internal control disclosure among companies listed in the SET 100 index during the period of 2016-2020. This period was chosen due to its significance in the evolution of corporate governance and disclosure practices in Thailand, a time when regulatory and economic conditions might have influenced the internal control disclosures of SET 100 companies.

By exploring the relationship between board and audit committee characteristics and the disclosure of internal control information within the context of SET 100 companies, this research endeavours to offer new insights into the mechanisms of corporate governance in Thailand. Such an inquiry is pivotal for enhancing

transparency, investor confidence, and the overall integrity of financial markets, contributing to the sustainable development of the business sector and society at large.

## 2. Research Objectives

2.1 Study the characteristics of information related to the disclosure of internal control information of registered companies in the Stock Exchange of Thailand.

2.2 Analyse the relationship between the characteristics of the board of directors and the audit committee with the disclosure of internal control information of registered companies in the Stock Exchange of Thailand's SET100 group.

## 3. Literature Review

### 3.1 Reviewing literature and developing hypotheses

Citing agent theory, it can be seen that the organisation's management does not always act in the interests of shareholders because there are other motivating factors that prioritize self-interest over wealth creation. to shareholders (Jensen & Meckling, 1976; Fama & Jensen, 1983; Shleifer & Visny, 1997). This creates a lack of confidence for investors in the financial market. To address this important issue, it is important to expand the role of the organisation's board and audit committee in evaluating the effectiveness of disclosing internal control, which is one way important to increase transparency and accountability. This will allow investors and other stakeholders to evaluate the effectiveness of the organisation's internal control system. Therefore, this study examines the literature on internal control disclosure characteristics, such as board size, board membership (including foreign and female board members, independent board members, CEO duality, financial and accounting executives), and audit committee characteristics (audit committee size, meetings, financial expertise, female and foreign members).

### 3.2 Characteristics of Internal Control Disclosure

The disclosure of internal control information is an essential framework for corporate governance. Michelon et al. (2015) found that improved stock performance is associated with companies that have higher quality internal control disclosure. Therefore, it can be seen that disclosing internal control information is a critical component. However, there have been no past studies on internal control disclosure for companies listed on the Stock Exchange of Thailand, only in the United States. These studies focused solely on internal control reporting for financial statements (Ashbaugh-Skaife et al., 2007; Deumes and Knechel, 2008; Doyle et al., 2007; Van de Poel and Vanstraelen, 2011).

This research aims to study the disclosure of internal control information, with a broader perspective on the context of registered companies in the Thai stock market. The study applies an expanded index of internal control disclosure, based on the research by Hooghiemstra et al. (2015), which consists of six dimensions: 1) strategic risk, 2) financial risk, 3) financial reporting risk, 4) disclosure of responsibility towards

internal control systems, 5) internal control measures, and 6) internal control framework. These dimensions align with the constraints of internal control under the conditions of cost and benefit considerations that managers use when deciding to disclose internal control information. The index development is based on the COSO framework, which is commonly used to define the components of internal control systems, including the control environment, risk assessment, control activities, and monitoring and evaluation.

### 3.3 Characteristics of the Board of Directors

#### 3.3.1 Size of the Board of Directors

The role and responsibility of the company's board of directors is to monitor, examine and evaluate the company's activities in order to create trust and profit for shareholders, in accordance with the principles of good corporate governance. The Board of Directors must ensure that the company has a good management system and an adequate system of internal control. According to a study by Ki-Han Chung et al. (2015), board size, board independence and expertise have an effect on the disclosure of corporate internal control information. Companies with larger boards of directors tend to disclose more internal control information, which is consistent with Yut Worachattthan (2012) emphasis on the importance of board size and the need to consider the law and practice regarding board size. Thai law requires a minimum of five directors for registered companies in the Stock Exchange of Thailand, but there is no maximum limit. A literature review found that the average board size of registered companies in the Thai stock market is about ten directors, and having a larger board of directors is likely to improve the efficiency of management. The researchers, therefore, made the following assumptions:

**H<sub>1</sub>** The size of the board of directors has a positive relationship with the disclosure of internal control information.

#### 3.3.2 Board of directors with foreign board members and female board members

The Board of Directors must be knowledgeable, competent and independent to ensure that the various activities of the company are conducted appropriately, in the best interests of the company and across important variables to improve overall efficiency and respect corporate governance principles. Management's primary responsibility for developing an adequate and appropriate system of internal control should be consistent with the environmental component of the COSO standard, which is the first fundamental component for maintaining the system's adequacy of the internal control system. Haniffa and Cooke (2005) indicate that if a company's board of directors is sufficiently diverse, whether it be a foreign member or a female member sitting on the board of directors, it would enhance overall efficiency and have positive effects on the company's internal control disclosure practices, consistent with the studies by Jianfei Leng and Yiran Ding (2011) and Yangyang Chen et al. (2017), which found that if a company's board of directors includes members of different nationalities or women, it may lead to diverse perspectives and expertise that positively impact the disclosure of the company's internal control information.

**H<sub>2</sub>** The board of director, which includes foreign members, has a positive relationship with disclosing internal control information.

**H<sub>3</sub>** The presence of female members on corporate board of directors has a positive relationship with the disclosure of internal control information

### **3.3.3 Board of directors with an independent member**

The independence of a company's board is an important characteristic according to good corporate governance principles, and is linked to the disclosure of internal control information. Agyei-Mensah (2016) study found that the independence of the company's board of directors had a positive impact on the disclosure of internal control information, resulting in reliable and transparent information presented in the annual reports. In addition, Ahmad et al. (2015) examines internal control disclosure in Malaysia and finds a significant positive relationship between company committee independence and risk management and internal control disclosure. These results support the study of Jianfei Leng and Yiran Ding (2011), which shows that an independent member is more likely to increase disclosure on internal control (Firth, 2007; Klein, 1998; Klein, 2002; Xie, 2003).

**H<sub>4</sub>** There is a positive relationship between the independence of the board of directors and the disclosure of internal control information.

### **3.3.4 CEO duality where top executives holding the position of chairman of the board of directors simultaneously**

The practice of combining the positions of CEO and Chairman of the Board contradicts good corporate governance principles. The consolidation of power resulting from such a combination can lead to excessive authority of the organisation's top executives. In addition, when executives are controlled, there may be a tendency to present financial reports that conflict with the truth, leading to retrospective fraudulent financial adjustments due to the lack of effective internal control systems (Warangkanang Lee Yan et al., 2021). This is consistent with the findings of Elzahar and Hussainey's research (2012), which noted that if the CEO holds the position of Chairman of the Board, it will have negative effects on the disclosure of information related to internal control systems. Moreover, Firth study (2007) found that if the CEO holds the position of Chairman of the Board, it may decrease the effectiveness of the board and result in negative consequences for the disclosure of internal control information.

**H<sub>5</sub>** There is a negative relationship between the CEO holding the position of Chairman of the Board and the disclosure of internal control information

### **3.3.4 Financial & Accounting Executives**

The top financial and accounting executive (CFO) is responsible for managing the cash flow and analysing the financial strengths and weaknesses of a company. Warangkanang and Thanasarn (2020)

note that in today's rapidly changing technological landscape, CFOs must adapt and place importance on customer service, changing mindsets and work systems to support their role as business consultants. They must focus on developing financial knowledge, utilising information technology, analysing financial information to support company operations and adding value to the organisation (Suwan Wangcharoendate, 2004). Haniffa and Cooke (2002); Huang et al. (2010) support this view, stating that having a CFO as a member of the board of directors enhances coordination and management of the organisation, and has a positive effect on internal control disclosures.

**H<sub>6</sub>** There is a positive relationship between financial and accounting executives (CFOs) and internal control disclosure.

### **3.4 The characteristics of an audit committee**

#### **3.4.1 Size of the audit committee**

The Audit Committee is one of the most effective committees that has a significant influence on the organisation and serves as a mechanism for overseeing operations. It is responsible for managing and reducing the information asymmetry between management and shareholders. It presents transparent financial reports, Krishnan (2005) studied the components of the Audit Committee to measure the quality of internal control. The study identified three indicators: the size of the Audit Committee, the independence of the Audit Committee, and financial experts. The study found that the independence of the Audit Committee and financial experts have a negative impact on internal control disclosures. In addition, the study by Yangyang Chen et al. (2017) indicates that if the size of the Audit Committee is large, there is a positive relationship with the disclosure of internal control of the company. Therefore, the following hypothesis can be formulated:

**H<sub>7</sub>** The size of the Audit Committee is positively related to the disclosure of internal control information.

#### **3.4.2 Audit Committee Meetings**

According to good corporate governance principles, the audit committee should hold regular meetings at least four times a year, accordance with the financial reporting cycle. This is due to the fact one of the duties of the audit committee is to review financial reports, and if the company prepares quarterly reviews, the audit committee should meet to review the accuracy and adequacy of those reviews at every reporting cycle. However, there may be greater than four meetings if the chair of the audit committee calls for additional meetings, or if asked via way of means of the internal auditors, the external auditors, or the company chairman to talk about essential problems together. In addition, Bronson et al. (2006) studied the different characteristics of audit committees and their relationships with internal control reporting. The components related to audit committee meetings, the independence of the audit committee, and financial experts were found to have significant positive effects on internal control reporting. This supports the study by

Yangyang Chen et al. (2017), which indicated that more frequent audit committee meetings are positively related to increased disclosure of internal control information.

**H<sub>8</sub>** Audit committee meetings are positively related to the disclosure of internal control information.

### 3.4.3 Audit Committee with Financial Accounting Expertise

The Stock Exchange of Thailand requires that the Audit Committee must comprise at least one person with financial accounting expertise, knowledge, understanding, or experience and have continuous knowledge about events that may affect changes in financial reporting. This is to reduce conflicts between management and auditors since an audit committee with financial accounting and finance knowledge will understand various audit procedures and can improve the quality of financial reporting (Sultana and Zhan, 2015). This is consistent with Abbott et al. (2004), which states that companies with audit committees that have accounting and finance expertise will present accurate and reliable financial reports. Additionally, Hoitash et al. (2009) studied the characteristics of boards and audit committees regarding internal control quality. They measured the characteristics of the audit committee with financial accounting and finance expertise such as the size of the audit committee and the frequency of meetings. The results showed that audit committees with financial accounting and finance expertise have a significantly negative relationship with the disclosure of internal information, which contradicts Spira and Page (2003) study. They found that if the audit committee has financial accounting and finance expertise, it would have a positive impact on the disclosure of the company's internal control information.

**H<sub>9</sub>** Audit committees with financial accounting expertise have a positive relationship with internal control disclosure.

### 3.4.4 Female Audit Committee

Based on a review of research on female audit committees, it was found that the diversity of the audit committee has a relationship to the company's performance (Adams and Mehran, 2012). In addition, theory suggests that gender diversity on the audit committee leads to better corporate governance and ultimately better financial performance (Carter et al., 2010). A study by Adams and Ferreira (2008) using a sample of US companies found that audit committees with gender diversity made more efforts to monitor and follow up on management. This is consistent with the findings of Jizi et al. (2014), which found that female audit committees help to consider various information in order to improve internal control disclosure. However, the study by Adams and Ferreira (2008) found a negative correlation between the proportion of female audit committee members and internal control disclosure.

**H<sub>10</sub>** Female audit committees have a positive relationship with internal control disclosure.

#### **3.4.5 Audit Committee with foreign member**

The different characteristics of the audit committee are related to internal control reporting. The diversity of the audit committee, such as gender, age, and foreign members, has a significant positive impact on internal control reporting (Bronson et al., 2006). This is consistent with the study by Yangyang Chen et al. (2017), which found that if the audit committee members are international, it will have a positive influence on the disclosure of internal control.

**H<sub>11</sub>** There is a positive relationship between the international audit committee and the disclosure of internal control information.

### **4. Research Framework and Methodology**

#### **4.1 Research Framework**

The research framework is constructed based on a comprehensive review of the literature, which identified six dimensions that encompass the disclosure of internal control information within organisations. These dimensions include:

##### **Strategic risk**

This aspect concerns evaluating and revealing the risks linked to an organisation's strategic Aims and long-term aspirations.

##### **Financial risk**

This facet entails recognising and divulging risks tied to financial activities, such as liquidity, solvency, and capital arrangements.

##### **Financial reporting risk**

This element concentrates on disclosing risks that could affect the precision and dependability of financial reporting, encompassing inaccuracies, fraudulent activities, and misrepresentations.

##### **Disclosure of responsibility for internal control systems**

This dimension deals with how much organisations reveal their dedication to establishing and maintaining effective internal control systems.

##### **Internal control measures**

This component covers the disclosure of particular measures and protocols implemented by organisations to alleviate risks and ensure conformity with internal control objectives.

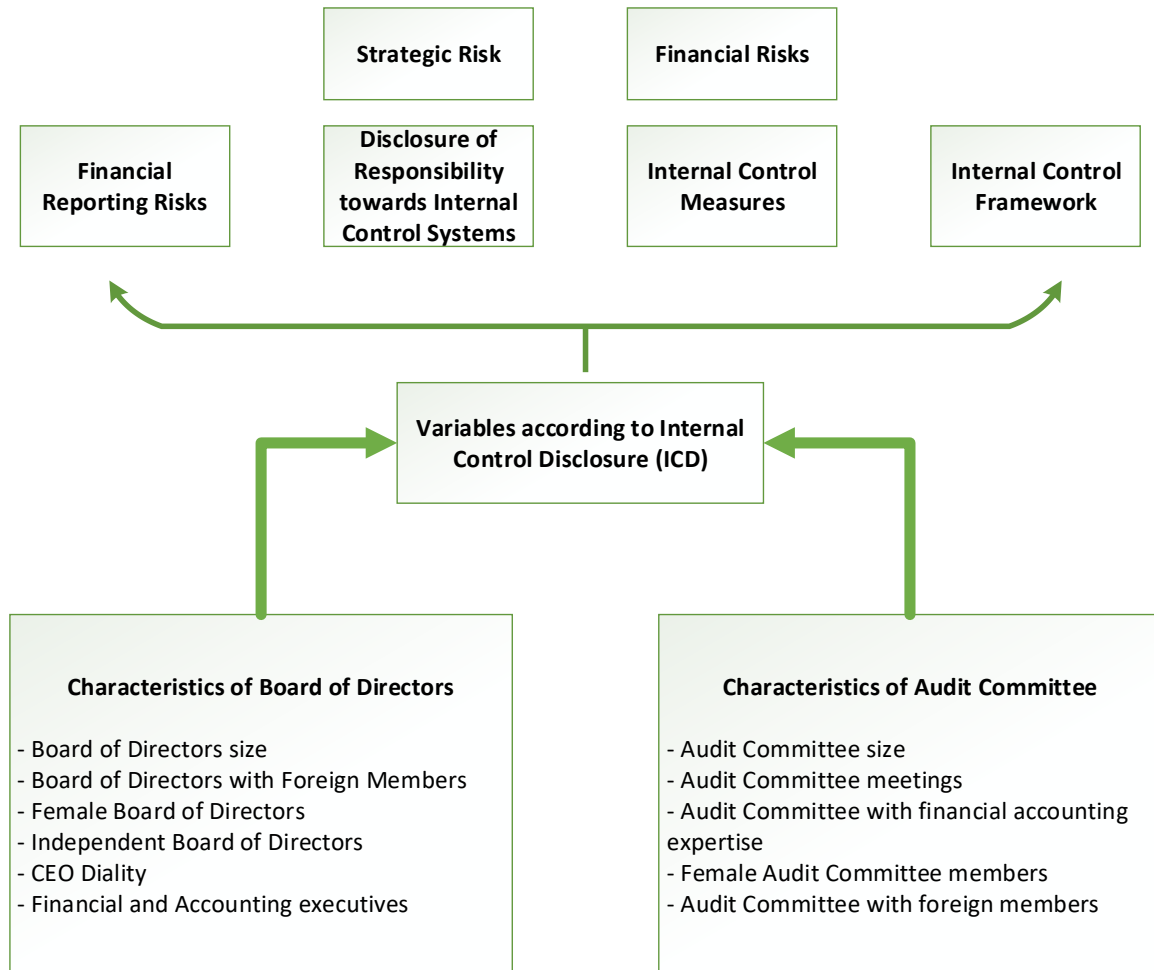
##### **Internal control framework**

This dimension relates to the comprehensive framework or structure of internal control systems within organisations, including the distribution of roles and responsibilities, the control environment, and monitoring mechanisms.



The research framework sorts companies based on these six dimensions of internal control information disclosure, enabling an examination of their correlation with the attributes of the company's board of directors and audit committee. Thus, the research framework was devised as depicted in Figure 1.

Figure 1  
Research Framework



#### 4.2 Research Methodology

This study seeks to thoroughly explore the disclosure characteristics of internal controls and analyse the complex interplay between board and audit committee characteristics and internal control practices within companies listed on the Stock Exchange of Thailand's SET100. This subset of the market is particularly intriguing due to its high liquidity, substantial market capitalisation, and the presence of companies exhibiting strong growth rates while adhering strictly to the regulatory framework set by the Thai Stock Exchange. The study covers the period from 2016 to 2020 and focuses on eight distinct industry groups within the SET100.

Originally, our sample consisted of 500 companies, but through a careful exclusion process, we narrowed it down to 415 companies. This selection aimed to minimise potential size bias while ensuring complete data availability across key variables such as board size, board diversity (foreigners, gender), Board of Investment (BOI) privileges, CEO duality, CFO presence, audit committee size, meeting frequency, expertise, gender diversity, and foreign membership. Our methodology integrates both traditional and innovative elements to enhance the reliability of our study:

#### 4.2.1 Sample Selection and Data Collection

We used a dual-instrument approach for data collection, employing checklist cards to gather internal control disclosure information and research model templates for systematic data recording and analysis. The development of checklist cards underwent a rigorous process informed by previous research and literature review, ensuring clarity and relevance in the assessment criteria for each dimension of internal control disclosure.

#### 4.2.2 Measurement of Internal Control Disclosure

We meticulously measured and quantified the internal control disclosure index (ICD) and related variables. The ICD was calculated by aggregating scores assigned to each dimension of internal control disclosure, extracted from annual reports (Form 56-1). Specific scoring procedures were outlined to maintain consistency and accuracy in the evaluation process.

#### 4.2.3 Data Analysis

Through descriptive statistics and multiple regression analysis, we tested a set of hypotheses to elucidate the relationships between internal control disclosure and both board and audit committee characteristics. The regression model specified served as a critical analytical tool for examining the dynamics between internal control disclosures and governance mechanisms:

$$\begin{aligned} Icd = & \beta_0 + \beta_1 \text{Board\_size} + \beta_2 \text{Board\_foreigner} + \beta_3 \text{Board\_gender} + \beta_4 \text{BOI} + \beta_5 \text{CEO\_duality} \\ & + \beta_6 \text{CFO} + \beta_7 \text{AC\_size} + \beta_8 \text{AC\_meeting} + \beta_9 \text{AC\_expert} + \beta_{10} \text{AC\_gender} \\ & + \beta_{11} \text{AC\_foreigner} + \varepsilon_i \end{aligned}$$

#### 4.2.4 Theoretical Underpinning and Variable Framework Consistency

Our research methodology was guided by a synthesis of agency theory and stakeholder theory, providing a comprehensive theoretical foundation for examining the nuanced relationships between internal control disclosures and governance mechanisms. Each variable within the framework was carefully

defined and consistently applied throughout the study, ensuring coherence between theoretical concepts and empirical testing.

By meticulously addressing these methodological considerations, our study aims to contribute meaningfully to the ongoing discourse on corporate governance and internal control practices, offering valuable insights for investors, stakeholders, and regulatory bodies in the Stock Exchange of Thailand.

#### Whereas:

Icd	=	Disclosure of internal control information, measuring risks related to 1) strategic risk, 2) financial risk, 3) financial reporting risk, 4) disclosure of responsibility towards internal control system, 5) internal control measures, and 6) internal control framework.
Board_size	=	Represents the number of board members in total
Board_foreigner	=	Represents the proportion of foreign board members to the total number of board members.
Board_gender	=	Represents the proportion of female board members to the total number of board members.
BOI	=	Represents the proportion of independent board members to the total number of board members.
CEO_duality	=	Binary variable that measures whether the CEO also serves as the Chairman of the Board with a value of 1 if yes and 0 if no.
CFO	=	Binary variable that measures whether the Chief Financial Officer is a board member, with a value of 1 if yes and 0 if no.
AC_size	=	Represents the number of audit committee members in total.
AC_meeting	=	Represents the number of audit committee meetings per year.
AC_expert	=	Represents the proportion of audit committee members with accounting and/or financial expertise to the total number of audit committee member.
AC_gender	=	Represents the proportion of female audit committee members to the total number of audit committee members.
AC_foreigner	=	Represents the proportion of foreign audit committee members to the total number of audit committee members.

## 5. Findings

Our research endeavours to provide a nuanced examination of both significant and non-significant findings derived from the analysis of the relationship between board and audit committee characteristics and the disclosure of internal control information within Thailand's SET 100 companies. This comprehensive

approach not only elucidates the dynamics inherent in corporate governance practices but also sheds light on the unique contextual factors influencing these practices within the Thai corporate landscape. Our analysis revealed that several independent variables, including board foreigner, Board of Investment (BOI) privileges, CFO presence, audit committee (AC) meeting frequency, AC expertise, AC gender diversity, and AC foreign membership, did not exhibit statistically significant correlations with the disclosure of internal control information. This observation stands in contrast to prior research findings, which suggested potential relationships between these governance attributes and disclosure practices. The following sections delve into potential explanations for these non-significant results and explore their implications for stakeholders:

### **5.1 Board Foreigner**

The lack of significant impact of foreign board members on internal control disclosure might suggest that cultural and regulatory familiarity plays a more pivotal role in such disclosures within the Thai context. It raises questions about the integration and influence of foreign directors in shaping governance practices in a predominantly Thai corporate culture.

### **5.2 BOI Privileges**

The insignificance of BOI privileges in influencing internal control disclosures could indicate that fiscal and investment incentives do not directly affect governance transparency or that companies are leveraging other aspects of governance to align with regulatory expectations.

### **5.3 CFO Presence**

The non-significant relationship between CFO presence and disclosure intensity might imply a standardised role of CFOs across companies, where the variance in disclosure practices is influenced more by other factors such as corporate strategy or operational complexity.

### **5.4 AC Meeting Frequency, AC Expertise, AC Gender Diversity, and AC Foreign Membership**

The non-significance of these variables suggests a potential homogeneity in audit committee practices across the SET 100, or it may reflect a ceiling effect where the basic regulatory compliance is met uniformly, leaving little variation to be explained by these characteristics. Additionally, it may indicate that the qualitative aspects of audit committee functioning, such as the effectiveness of communication and the depth of understanding of internal controls, are more critical than quantitative measures like meeting frequency or composition diversity.

This analysis underscores the importance of considering the unique corporate governance landscape in Thailand, where cultural, regulatory, and market dynamics may influence the relationship between governance characteristics and disclosure practices differently compared to other contexts. For regulators, these findings highlight areas where current governance guidelines may be reassessed to enhance disclosure practices. For practitioners and company management, understanding these nuances can guide the refinement of governance structures to better align with both regulatory expectations and stakeholder demands.

Moreover, for researchers in the domain of corporate governance, this study opens new avenues for exploring the contextual determinants of effective governance practices, suggesting a need for more localised studies that consider the interplay between cultural norms, regulatory frameworks, and corporate governance attributes.

In summary, while certain anticipated relationships between board and audit committee characteristics and the disclosure of internal control information were not statistically significant in the context of Thailand's SET 100, this investigation provides critical insights into the complexity of corporate governance practices and their impact on transparency and accountability in the Thai market.

### Significant Findings

**CEO Duality:** Consistent with our hypothesis, CEO duality was found to negatively impact the level of internal control disclosure. This finding aligns with governance best practices advocating for the separation of the CEO and Chairman roles to mitigate potential conflicts of interest and enhance oversight.

**Audit Committee Size:** Our analysis indicates a positive relationship between the size of the audit committee and the extent of internal control disclosure. This suggests that larger audit committees, potentially with a diversity of expertise, are more effective in overseeing comprehensive disclosure practices.

### Non-significant Findings and Alternative Explanations

Despite the anticipation of significant relationships, several variables including board foreigner presence, BOI privileges, CFO presence, audit committee meeting frequency, expertise, gender diversity, and foreign membership did not exhibit a statistically significant impact on internal control disclosure. These non-significant findings prompt a deeper investigation into alternative explanations:

**Cultural and Regulatory Context:** The non-significant impact of board foreigner presence and BOI privileges suggests that internal control disclosure practices may be more deeply influenced by local cultural norms and regulatory frameworks than by the international diversity of board members or investment incentives.

**Standardisation Across Companies:** The lack of significant findings related to CFO presence and specific audit committee characteristics (e.g., meeting frequency, expertise, gender diversity) may reflect a degree of standardisation in governance practices across Thailand's SET 100 companies, potentially due to regulatory compliance or industry norms.

**Qualitative Aspects of Governance:** The non-significance of certain audit committee attributes underscores the potential importance of qualitative factors over quantitative measures. The effectiveness of these committees may hinge more on the depth of understanding and the quality of communication regarding internal controls, rather than on their composition or frequency of meetings.

### Implications of Findings

These results underscore the complexity of governance and disclosure practices within the Thai corporate sector, highlighting the importance of considering both significant and non-significant findings in

understanding the multifaceted nature of corporate governance. The absence of expected significant relationships invites a re-evaluation of conventional governance theories in the context of Thailand's unique cultural, regulatory, and market environment.

Furthermore, the findings suggest avenues for future research, particularly in exploring the qualitative aspects of audit committee operations and the role of cultural and regulatory factors in shaping governance practices. For regulators and practitioners, these insights emphasise the need for nuanced governance frameworks that account for local contexts while aiming to enhance transparency and accountability in corporate disclosures.

In conclusion, this investigation reveals a complex interplay between governance characteristics and disclosure practices among Thailand's SET 100 companies. By embracing a comprehensive approach that considers both significant and non-significant findings, this study contributes to a deeper understanding of corporate governance within specific market contexts and offers valuable perspectives for both theoretical exploration and practical application in governance practices.

## 6. Research Results

The objective of this research is twofold: 1) to study the characteristics of internal control disclosure, and 2) to analyse the relationship between the characteristics of board of directors and audit committee and internal control disclosure of registered companies in the Stock Exchange of Thailand. The sample group was selected based on industry classification of SET100 and population of 500 companies, except for those in the securities, banks, life insurance, and non-life insurance industries, resulting in a remaining sample size of 415 companies. The sample group selection is presented in Table 1.

**Table 1** Sample group selection

Industry	Number	Percentage
Agriculture and food industry	15	3.00
Consumer products	40	8.00
Financial services	85	17.00
Industrial products	20	4.00
Real estate and construction	75	15.00
Resources	110	22.00
Services	105	21.00
Technology	50	10.00
Total	500	100.00
Deduct: Financial services companies	85	
Sample companies	415	

Table 2 Number of Companies that Disclose Internal Control Information, Classified by 6 Indices, by Industry Group

Industry	N <sub>1</sub>	I <sup>1</sup>	%	I <sup>2</sup>	%	I <sup>3</sup>	%	I <sup>4</sup>	%	I <sup>5</sup>	%	I <sup>6</sup>	%
a.	15	10	7.29	11	7.29	10	5.53	15	2.59	7	3.99	15	4.02
b.	40	9	6.57	18	6.57	40	9.05	35	10.36	17	9.31	27	7.24
c.	20	12	8.76	14	8.76	20	7.04	20	5.18	2	5.32	20	5.36
d.	75	18	13.14	31	13.14	73	15.58	70	18.91	32	18.62	73	19.57
e.	110	35	25.55	43	25.55	106	21.61	102	27.46	41	27.13	102	27.35
f.	105	35	25.55	53	25.55	89	26.63	88	23.06	4	23.4	89	23.86
g.	50	18	13.14	29	13.14	48	14.57	46	12.44	1	12.23	47	12.6
Total	415	137	100	199	100	386	100	376	100	104	100	373	100

a. Agriculture and Food Industry Group

- b. Consumer Products Industry Group
- c. Industrial Products Industry Group
- d. Real Estate and Construction Industry Group
- e. Resource Industry Group
- f. Service Industry Group
- g. Technology Industry Group
- N<sup>1</sup> Number of Company
- I<sup>1</sup> Strategic Risk
- I<sup>2</sup> Financial Risk
- I<sup>3</sup> Disclosure of Responsibility towards Internal Control Systems
- I<sup>4</sup> Internal Control Statement
- I<sup>5</sup> Internal Control Measures
- I<sup>6</sup> Internal Control Framework



According to Table 2, it was found that during the period of 2016-2020, among the SET 100 companies registered in the Stock Exchange of Thailand, all 415 companies disclosed their internal control information completely, which accounts for 100%. However, when considering each aspect of the internal control disclosure index, based on the objectives of the study, it was found that in terms of the disclosure of internal control information related to financial reporting risk, it was the most disclosed, with 386 companies or 93.01%. Next, in terms of the disclosure of responsibility towards internal control system, there were 376 companies or 90.60%. Finally, in terms of the disclosure of internal control measures, only 104 companies or 25.06% disclosed such information.

Table 3 Presents the results of the analysis of the relationship between independent variables and internal control disclosure.

Variables	Icd	Board Size	Board Foreigner	Board Gender	BOI	CEO Duality	CFO	AC Size	AC Meeting	AC Expert	AC Gender	AC Foreigner
Icd	1	0.064*	0.016	-0.018	-0.098	-0.121**	-0.081	0.215**	-0.074	0.038	0.067	0.081
Board Size	0.064*	1	-0.206	-0.427	-0.225	-0.12	0.054	0.109	0.178	-0.064	-0.165	0
Board Foreigner	0.016	-0.206	1	0.041	0.01	0.031	0.091	0.03	-0.156	0.082	0.059	0.136
Board Gender	-0.018	-0.427	0.041	1	0.138	0.096	-0.049	-0.052	-0.127	0.017	0.303	0.005
BOI	-0.098	-0.225	0.01	0.138	1	-0.079	0.202	0.011	0.25	-0.073	0.06	-0.03
CEO Duality	-0.121**	-0.12	0.031	0.096	-0.079	1	-0.039	0.036	-0.131	0.107	0.098	-0.024
CFO	-0.081	0.054	0.091	-0.049	0.202	-0.039	1	0.127	0.032	-0.031	-0.088	-0.042
AC Size	0.215**	0.109	0.03	-0.052	0.011	0.036	0.127	1	-0.03	0.041	-0.092	-0.018
AC Meeting	-0.074	0.178	-0.156	-0.127	0.25	-0.131	0.032	-0.03	1	-0.119	0.109	0.004
AC Expert	0.038	-0.064	0.082	0.017	-0.073	0.107	-0.031	0.041	-0.119	1	0.01	-0.019
AC Gender	0.067	-0.165	0.059	0.303	0.06	0.098	-0.088	-0.092	0.109	0.01	1	0.115
AC Foreigner	0.081	0	0.136	0.005	-0.03	-0.024	-0.042	-0.018	0.004	-0.019	0.115	1

**Note:** \*\* indicates a significant correlation at the 0.01 level (2-tailed), and \* indicates a significant correlation at the 0.05 level (2-tailed).

According to Table 3, which analyses the correlation between independent variables and disclosure of internal control information of registered companies in the Stock Exchange of Thailand, using Pearson Correlation and Spearman's rho, the results show that the 11 independent variables have a correlation with each other not exceeding 0.65, which is consistent with the study of Burns and Grove (1993), and does not cause multi-collinearity problems. The analysis of the correlation between board characteristics and audit committee with the disclosure of internal control information is shown in Table 4.

**Table 4** Presents the results of the analysis of the relationship between independent variables and internal control disclosure using the multiple regression analysis method.

Variables	Predicted sign	Coefficients	SE	p-value	VIF
(Constant)		0.07	0.148	0.637	
Board Size	Positive	0.009	0.004	0.035*	1.337
Board Foreigner	Positive	-0.052	0.061	0.393	1.103
Board Gender	Positive	0.008	0.082	0.925	1.287
BOI	Positive	0.092	0.092	0.32	1.14
CEO Duality	Negative	-0.078	0.029	0.007**	1.063
CFO	Positive	0.192	0.229	0.404	1.137
AC Size	Positive	0.156	0.034	0.000**	1.055
AC Meeting	Positive	0.004	0.016	0.817	1.052
AC Expert	Positive	-0.051	0.08	0.522	1.034
AC Gender	Positive	-0.059	0.054	0.28	1.127
AC Foreigner	Positive	0.379	0.474	0.425	1.01
F-Stat	3.568**				
Adjusted R Square	0.064				
Durbin-Watson	1.904				

NOTE: \*p < 0.05, \*\*p < 0.01, two-tailed tests; n = 415

From Table 4, the results of testing the relationship between board characteristics and audit committee disclosure of companies registered in the Stock Exchange of Thailand are composed of 11

independent variables: 1) board size, 2) board foreigner, 3) board gender, 4) BOI, 5) CEO duality, 6) CFO, 7) AC size, 8) AC meeting, 9) AC expert, 10) AC gender, and 11) AC foreigner. The F-stat value at a statistically significant level of 0.01 indicates that the model used in the study is appropriate, and the adjusted R Square value of 0.064 explains that each independent variable can explain the audit committee disclosure of companies registered in the Stock Exchange of Thailand by approximately 6.4%. In general, the research found that CEO duality and AC size are significantly related to internal control disclosure (ICD) at a statistically significant level of 0.01. CEO duality has a negative correlation, while AC size has a positive correlation with ICD. In addition, it was found that board size also has a relationship with ICD

In summary, the study aimed to analyse the correlation between board of directors and audit committee characteristics and the disclosure of internal control information among companies in Thailand's SET 100 group listed on the Stock Exchange. The findings revealed a statistically significant positive correlation between the size of the board of directors and the audit committee and the disclosure of internal control information. However, from the perspective of Board foreigner, Board gender, BOI, CFO, AC expert, AC gender, and AC foreigner were found to have no relationship with the disclosure of internal control information. The test results of the hypothesis on the relationship between the characteristics of the board of directors and the audit committee and the disclosure of internal control information of companies listed on the Stock Exchange of Thailand's SET 100 group are summarized in Table 5 below.

**Table 5** Summarises the results of testing the hypothesis on the relationship between the characteristics of the board of directors and the audit committee with the disclosure of internal control information of companies listed on the Stock Exchange of Thailand's SET 100 group.

Research Hypotheses	Findings
H <sub>1</sub> : The size of the board of directors has a positive relationship with the disclosure of internal control information.	Accept
H <sub>2</sub> : The board of director, which includes foreign members, has a positive relationship with disclosing internal control information.	Reject
H <sub>3</sub> : The presence of female members on corporate board of directors has a positive relationship with the disclosure of internal control information.	Reject
H <sub>4</sub> : There is a positive relationship between the independence of the board of directors and the disclosure of internal control information.	Reject
H <sub>5</sub> : There is a negative relationship between the CEO holding the position of Chairman of the Board and the disclosure of internal control information.	Accept
H <sub>6</sub> : There is a positive relationship between financial and accounting executives (CFOs) and internal control disclosure.	Reject

Table 5 (continued)

Research Hypotheses	Findings
H <sub>7</sub> : The size of the Audit Committee is positively related to the disclosure of internal control information.	Accept
H <sub>8</sub> : Audit committee meetings are positively related to the disclosure of internal control information.	Reject
H <sub>9</sub> : Audit committees with financial accounting expertise have a positive relationship with internal control disclosure.	Reject
H <sub>10</sub> : Female audit committees have a positive relationship with internal control disclosure.	Reject
H <sub>11</sub> : There is a positive relationship between the international audit committee and the disclosure of internal control information.	Reject

## 7. Conclusion

The objectives of this study are to examine the characteristics of internal control information disclosure and analyse the relationship between board characteristics and audit committee characteristics with internal control information disclosure among 415 listed companies in the SET 100 industry group in Thailand, during the financial years 2016-2020.

The research findings reveal that the internal control information disclosure characteristics of listed companies in the Thai Stock Exchange's main market include disclosure of all six aspects of internal control, namely: 1) strategic risk, 2) financial risk, 3) financial reporting risk, 4) disclosure of responsibility towards internal control systems, 5) internal control measures, and 6) internal control frameworks. These are in accordance with the criteria for good corporate governance of internal control information disclosure for listed companies in the Thai Stock Exchange's main market, and are also within the framework of the COSO concept. The study's results are consistent with the classifications of internal control information disclosure characteristics identified by various previous studies, including Hooghiemstra, R., Hermes, N., and Emanuels, J. (2015); Ashbaugh-Skaife et al., (2007); Deumes and Knechel, (2008); Doyle et al., (2007); Van de Poel and Vanstraelen, (2011); and Agyei-Mensah (2016). The research also found that among the disclosure characteristics, financial reporting risk had the highest level of disclosure, while (4) disclosure of responsibility towards internal control systems had the second-highest level of disclosure. Internal control measures had the lowest level of disclosure. These results have important implications for regulators, practitioners, and researchers in the area of corporate governance and financial reporting in Thailand.

The research findings show that the size of the board of directors has a statistically significant positive relationship with the disclosure of internal control information, consistent with the research hypotheses. Additionally, this is consistent with the theory and previous research by Bronson et al. (2006);

Deumes and Knechel (2008); Fama (1980); Hoitash et al. (2009); Ahmad et al. (2015); Khurram Ashfaq and Zhang Rui (2019); Agyei-Mensah (2016); Xiaowen (2012); Warangkanang Lee yan et al. (2021), which have indicated that board characteristics are related to the disclosure of internal control information in registered companies. This research supports the principle of good corporate governance in terms of board characteristics and internal control disclosure. The Stock Exchange of Thailand (2012) states that the board of directors represents the shareholders and has a responsibility to oversee, monitor, and evaluate the company's performance to build confidence and provide returns to shareholders. The organisation must have an adequate internal control system. Yut Worachattthan (2012) has also emphasised the importance of the main responsibilities of the board of directors and the size of the board of directors, stating that the size of the board of directors must take into account the laws and practices regarding the size of the board, which is regulated by Thai law with a minimum of five people, but there is no maximum. The majority of companies have a board of directors of about ten people. The research found that a larger board of directors is positively correlated with the disclosure of internal control information. It was also mentioned that registered companies on the Stock Exchange of Thailand have a governance structure that requires management to disclose relevant information about internal control.

From the perspective of top management, holding a position paired with the chairman of the company and disclosing internal control information, this study found that top management holding a position paired with the chairman of the company has a negative relationship with the disclosure of internal control information that is statistically significant. This is consistent with the research hypotheses, theory, and past research of Elzhar and Hussainey (2012); Sun et al. (2012); Michelon et al. (2015); Haniffa and Cooke (2005), which found that if the top management of a company holds a position paired with the chairman of the board, it will adversely affect the policy on disclosing information about the internal control system. This research supports the principle of good corporate governance that recommends separating the roles of top management and the chairman of the board to avoid excessive power in the highest level of management of the organisation. Therefore, if a company registered in the Stock Exchange of Thailand intends to efficiently disclose information about internal control, it should separate the positions of top management and the chairman of the board to promote transparency and equal access to information about the company. Furthermore, this research also found that companies registered in the Stock Exchange of Thailand still combine the positions of top management and the chairman of the board by 18.55 percent, and there is no data available for another 2.41 percent. The researchers expect that in practice, there is still a tendency to consolidate power between top management and the chairman.

In addition, the research found a positive relationship between the size of the audit committee and the disclosure of internal control information that is statistically significant, which is consistent with the theoretical and empirical research of Krishnan (2005); Hoitash et al. (2009); Khlif and Samaha (2016); Bronson et al. (2006). This study found that registered companies in the Thai stock market specify the size and qualifications of the audit committee according to regulations. Therefore, it can be believed that the disclosure

of internal control information is adequate and appropriate. From the appropriate size of the audit committee, it can be used as a tool to measure the quality level of the disclosure of internal control information of registered companies in the Thai stock market effectively. If you want to improve or enhance the effectiveness of internal control information disclosure, it is recommended to consider increasing the size of the audit committee.

This research suggests that the characteristics of a company's Board of Directors and Audit Committee are significant factors in determining the disclosure of internal control information for firms listed on the Stock Exchange of Thailand. Specifically, companies with larger boards of directors and audit committees are more likely to disclose internal control information. Conversely, when a company's top executive and chairman have a merger, there tends to be less disclosure of internal control information.

Our analysis considered both significant and non-significant findings, offering insights into the contextual nuances influencing governance practices within the Thai corporate landscape. While certain variables did not exhibit significant correlations, such as board foreigner and CFO presence, further exploration is warranted to understand their impact on disclosure practices fully.

Acknowledging the study's limitations, including sample composition and measurement tools, future research could explore governance practices across diverse sectors, employ qualitative methods for deeper insights, and conduct international comparisons to elucidate cultural and regulatory influences on disclosure practices.

In conclusion, this research underscores the significant role of board and audit committee characteristics in determining internal control information disclosure among firms listed on the Stock Exchange of Thailand. The findings contribute to the ongoing dialogue on corporate governance effectiveness and transparency, providing valuable insights for regulators, practitioners, and researchers alike.

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