The Impact of Audit Quality on Trading Suspension Propensity; Detection in Thailand

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ผลกระทบของคุณภาพการตรวจสอบต่อการระงับการซื้อขายหุ้นชั่วคราวจากหลักฐานข้อมูลการตรวจสอบในประเทศไทย

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อิงจากหลักฐานทางตรงจากกรณีที่เกิดขึ้นจริงซึ่งเปิดเผยโดยสำนักงานคณะกรรมการกำกับหลักทรัพย์และตลาดหลักทรัพย์ (ก.ล.ต.) และหลักฐานทางอ้อมจากกรณีต้องสงสัยที่ตรวจพบโดยแบบจำลองการตรวจจับโอกาสที่จะเกิดการระงับการซื้อขายหลักทรัพย์ การศึกษานี้มีวัตถุประสงค์เพื่อสำรวจความสัมพันธ์ระหว่างคุณภาพการสอบบัญชีและโอกาสที่จะเกิดการระงับการซื้อขายหลักทรัพย์ของบริษัทจดทะเบียนในประเทศไทย รวมถึงการเปลี่ยนแปลงในความสัมพันธ์นี้หลังการระบาดของโรคระบาดโควิด-19 การวิจัยใช้ข้อมูลจากแหล่งข้อมูลสำคัญที่ได้รับจากรายงานประจำปีและงบการเงินของบริษัทจำนวน 263 บริษัทที่จดทะเบียนในดัชนี SET50 และ MAI ครอบคลุมระยะเวลาในปี 2016 ถึง 2018 และปี 2020 ถึง 2022 ผลการวิจัยแสดงว่าการปฏิบัติตามหลักการสอบบัญชีมีส่วนในการเพิ่มความถูกต้องของข้อมูลทางการเงินที่ปรากฏอยู่ในงบการเงินและรายงานทางการเงิน ซึ่งนำไปสู่การปรับปรุงคุณภาพของข้อมูลทางการเงินและลดความไม่เท่าเทียมของข้อมูลระหว่างผู้ใช้ ทำให้หลีกเลี่ยงการซื้อขายที่ได้เปรียบจากผู้มีข้อมูลภายในและการปั่นราคาหลักทรัพย์ จึงทำให้ลดโอกาสที่จะเกิดการระงับการซื้อขายหลักทรัพย์ ซึ่งไม่มีความแตกต่างที่สังเกตเห็นอย่างมีสาระสำคัญในช่วงระยะเวลาของโรคระบาดโควิด-19 เทียบกับช่วงระยะเวลาก่อนหน้า นอกจากนี้การศึกษาเปิดเผยว่ารายงานการสอบบัญชีที่มีคุณภาพสูงช่วยให้ผู้ใช้สามารถคาดการณ์ประสิทธิภาพในอนาคตและผลตอบแทนที่คาดหวังของบริษัทได้ โดยลักษณะของคุณภาพการสอบบัญชีถูกประเมินผ่านขนาดของบริษัทตรวจสอบบัญชี, การเปลี่ยนแปลงผู้สอบบัญชี, ค่าธรรมเนียมการสอบบัญชี, ระยะเวลาการสอบบัญชี และความเห็นของผู้สอบบัญชี ข้อมูลเหล่านี้จะถูกนำเข้ากระบวนการการวิเคราะห์ทางสถิติแบบเชิงพรรณนา การวิเคราะห์ความสัมพันธ์และการประมาณค่าโดยแบบจำลองโพรบิทแบบเรียงลำดับ

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Based on each direct evidence consists of actual cases disclosed by the Securities and Exchange Commission (SEC), and indirect evidence consists of suspected cases detected by the identification model of trading suspension propensity. This study aimed to examine the relationship between audit quality aspects and trading suspensions of listed companies in Thailand, as well as the changes in this relationship after the outbreak of the COVID-19 pandemic. The research utilized ส ำ ห รั บ ผู้ obtained from the annual reports and financial statements of 263 companies listed on the SET50 and MAI indexes, covering the periods of 2016 to 2018 and 2020 to 2022. The findings indicated that auditing practices contributed to enhancing the validation of the information contained in financial statements and reports. This, in turn, resulted in improved quality of financial information and reduced information asymmetry among users, thereby discouraging insider trading and market manipulation. Consequently, the probability of trading suspension was lowered without any notable difference observed during the COVID-19 period relative to the previous pandemic period. Furthermore, the study revealed that high-quality audit reports facilitated users' ability to predict future performance and expected returns of companies. The signals of audit quality were assessed using Audit Firm Size, Audit Switch, Audit Fees, Auditor Tenure, and Qualified Audit Opinion. The collected data underwent analysis employing Descriptive statistics, Correlation analysis and Ordered Probit estimations.

Field of Study:	Finance	Student's Signature .....
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Kulthida Surattachaipong

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CHAPTER 1: INTRODUCTION

1.1 Background

The value of a company is based on its future earnings and growth, making financial information crucial for outsiders and investors. However, informed investors may intentionally misprice a business's value to meet a prearranged goal and achieve a high-income level. This can be achieved by planning and executing certain affairs that increase their capital gain, as well as attacking the company's stock price (Schipper, 1989). In such cases, management may have flexible opportunities to prepare accounting or operational alternatives or convey exclusive information to financial statement users, which can provide stakeholders with information not otherwise available and allow them to adjust their expectations appropriately. However, cautious disclosure of such information could influence the company's earnings and share price. If the information is significant and relevant to users and analysts of financial statements, they may adjust company valuations and stock prices for other companies in the industry as well. This can have a beneficial impact on the company, as revealing such information can have a positive effect on its value by seeming to have a higher quality of income and earnings.

To prevent the mentioned instance as well as to investigate manipulative, abusive, or illegal trading practices in the stock exchanges, and to maintain fair and efficient trading, the SET uses specific supervisory signs to regulate trading and notify investors of special situations and conditions that may strike the listed companies' securities. This market surveillance by SET can help to ensure the orderliness of the market, in case buyers and sellers are willing to participate because they are confident in the rationale and accuracy of the transaction. Without market surveillance, a market could get disordered. This will hinder investment and discourage economic growth. Therefore, market surveillance plays a key role in supervision which could be processed by the public and private sectors (Cumming, 2008). SET determines Trading Signs [1]for many situations in Appendix; Table 1.

[1] Trading sign https://www.set.or.th/en/market/information/trading-procedure/trading-signs

According to the Securities Exchange Act, the SEC has the authority to suspend securities trading for a maximum of 10 trading days in order to safeguard investors. This trading suspension is enacted in the interest of the public and investor protection, and the SEC will make a determination based on their investigation. A press release is then issued to explain the reason for the suspension. During the suspension period, the SEC will not disclose publicly the extent of the investigation. While the suspension is in effect, the shares cannot be traded until the suspension is lifted or expires. The length of the suspension period will be determined on a case-by-case basis.

Trading suspension happens for a number of reasons, including Lack of current, accurate, or sufficient information about the company, for example, when periodic reporting is not present; Interrogates about the accuracy of available public information, along with the content of the latest press releases; Scrutinizes about stock irregular trading, such as market manipulation or insider or informed investors trading.

The most ordinary cause for suspended trading is the lack of accurate or current financial statements. In most cases, companies submit the issue by addressing the necessary financial information to meet the requirements. Rare cases may involve fraud cases. The Company may suffer long-term consequences from the suspension of trading.

The SEC was unable to warn investors in advance about the approaching suspension to protect the integrity of the investigation. If the suspension does not finish, then an early announcement would have an unfairly adverse effect on existing investors. Securities trading on domestic stock exchanges such as the Stock Exchange of Thailand (SET) or the Market for Alternative Investment (MAI), can resume trading immediately upon lifting the suspension. When it comes to over-the-counter securities, brokerage agents cannot call investors to buy or sell suspended securities until certain conditions are met, but unsolicited trading of securities is permitted. The price of security usually drops sharply after the suspension since investors may lack confidence in the management. Prices may recover quickly, however, if the problem is assumed to be resolved.

External investors who do not actually have internal information can only acknowledge the company's information via general business information disclosed by the company, financial analyst reports, and financial reports which is the most valuable information that helps investors in order to make their investment decision. Creditable financial reports provide significant knowledge for shareholders, external investors, creditors, management, and the government. The financial statements comprise the statement of financial position, income statement, the statement of cash flow, and notes to the financial statements (Bagherpour et al., 2010). The financial statements will be useful and build credibility with third parties or shareholders when the company chooses an auditing firm that has standards in practice, good quality in the control system, and the auditors in the firm have the knowledge, ability, and expertise in auditing, especially detected and gave a certified assurance opinion on the company's financial reports. The users can depend on this quality of information only after the auditor, who is reliable and independent, assures the validity of this information. Companies prefer to engage qualified auditors to convince external users of the reliability of financial disclosures and in consequence mitigate information asymmetries (Anderson et al., 2004). Because external auditors are expected to have a deep understanding of the business process and the relevant risks. The auditors need to evaluate and ensure that the company maintains complete accounting records free from errors and omissions. They are required to thoroughly assess the risk of material misstatement in the financial statement and need to assure the company has complied with the applicable compliance and regulations which are in line with the application of audit framework and auditing standards. Hence, auditors perform a role as corporate governance in monitoring a company's financial reporting approach (Ashbaugh & Warfield, 2003) and declaring the financial record errors and omissions together with reporting on key audit matters as well as communicating audit findings with management and shareholders. Thus, audit quality is a significant indicator to identify the creditability of financial information. Audit independence discourages agency costs by verifying the completeness and truthfulness of the financial information, therefore allowing more efficient and accurate contracts to be based on the verification (Cohen et al., 2002). Auditing provides an essential part of the business by making awareness of the performance in each accounting cycle,

identifying the financial status, and risk assessment in terms of errors and fraud affecting the business's administration and the use of various resources in the future. It is also beneficial for investors to consider the performance as well as create credibility for the business as well. Auditing is like collateral for the company to evaluate the efficiency of operations and the potency of various control activities, whether in respect of administration or finance. This will allow entrepreneurs to use the results to improve business operations appropriately. Also, auditors are crucial players to improve market integrity and lessening information risk, the major economic migrant behind the need for auditing services, that potentially inform shareholders and investors, monitor managerial behavior, and facilitate the discipline and detection of the anomalies of market (Charitou et al., 2019; Francis, 2013).

A certified auditor should have a variety of auditing techniques in an organization, such as document inspection, accounting information observation, mathematic recalculation, operational control detection, balance confirmation, interview technique, administrative review, inquiries from related parties, or other audit approaches in order to obtain sufficient evidence to give the financial statement's opinion. In this regard, the auditor must comply with auditing standards and comply with the accounting profession ethics that must be honest, transparent, and work with fairness. behave independently and maintain corporate confidentiality. Therefore, we expect that stocks with a stronger signal of audit quality will have a lower degree of misrepresentation and manipulation which are the prime causes for trading suspension propensity following to the SET's criteria due to the equality of public information reflection.

However, the reliability of reported financial information and audit quality capabilities to effectively limit misrepresentation of earnings and management of companies' financial statements around the world and especially in Thailand become a matter of great suspicion due to the recent corporate scandal (Enofe, 2010). Dissimilarity in the quality of audits consequences in a variation in the auditor's credibility and the soundness of companies' financial reports. Recent corporate finance scandals pose a huge challenge to legitimacy. credibility utility or the relevance of the audit entity's value. So far, many press associations report a list of firms notified of trading

suspension in the latest history. Perhaps the most well-known such story occurred in 2001, the Enron scandal. The company's stock price plummeted and traded for pennies within days, leading Enron to file for bankruptcy later that year, and the NYSE suspended trading of Enron stock the subsequent year, citing its share price below $1, an infringement of standard of Big Board Also, in Thailand, corporate scandals include the cases of Crown Tech Advance Plc. (AJD); Solution Corner (1998) Plc. (SLC); Energy Earth Plc. (EARTH); Roy Net Plc. (ROYNET); Argo Industrial Machinery Plc. (AMAC); and more recent cases, MORE Return Plc. (MORE) and STARK Corporation Public Company Limited (STARK); the SET has suspended MORE shares after finding certain brokers have defaulted on significant amounts of their clients from unusual stock purchase transactions in 2022. Also, STARK shares have suspended in 2023 after untimely reporting financial statement to SEC and suspected of frauds in relation to revenue recognition and fake account receivables creation. These cases have been known to be reported publicly resulting in misleading financial reports. Thereby, concerns about financial information's quality and its relationship have arisen with the quality of the auditing procedures. This was found to come up over time with periodic clusters of business failures, litigations, and fraud. The problem is whether the downfall of these corporates is not the consequence of low audit quality and the incapacity of audit functions to detect financial misstatements and inaccurate reporting (Okolie & Izedonmi, 2014).

Audit quality standards and guidelines provide best practices that emerged in different countries to stop the brutal downfall of the organization that has spread across the world in the past decade. Most of these codes describe the regulatory backing which is in place to assure and maintain the integrity of the auditor's reports related to financial information and an organization's earnings. Audit quality was first established by (DeAngelo, 1981) as the joint probability estimated by the market that one auditor discovered and reported a breach in a client's accounting system. The European Supreme Audit Institution (EUROSAI) issued an audit quality assessment in 2004 to include the level of a set of characteristics required. Accordingly, the audit procedure evaluates the possibility of material misstatement. and reducing the likelihood of undetected misstatements to an appropriate assurance level (Knechel et al., 2009; Watts & Zimmerman,

1986). Audit quality has been conceded to sway financial reporting and has a significant effect on the confidence of investors (Levitt, 1998). Independent auditors play a challenging and vital role in agreeing on the reliability of financial reports (Miller, 1962; Wallace & Freeman, 1987).

1.2 Research Gap and Motivation

In the challenges facing audit functions, most of the research has related to the measurement of audit quality and has examined the relationship of audit quality which includes many financial information factors. Some previous researches (Balsam et al., 2003; Heninger, 2001; Teoh & Wong, 1993) have tried to contribute a clear audit quality relationship with the stock price of the company and has attempted to demonstrate the effect of this relationship on the earnings quality reported by the company in several countries, but its study earlier reviewed were conducted outside the shores of Thailand. The above study shows that the quality of audits is supposed to reduce the extent of a company's reporting revenue manipulation and influence investor responses to company earnings announcements and stock prices. However, while there is a wealth of literature on Audit Quality on stock price, earnings, and return, Audit Quality on stock trading irregular propensity has not attracted sufficient academic interest. This study could fulfill the gap of prior studies in terms of stock irregularity mitigation by audit quality. Consequently, the study shifted from financial performance measures to discovering the impact of audit quality in trading suspension cases in the stock market placed by the SEC. The essence of concentrating on trading suspension is to decrease the amiss probability of stock trading which could be manipulation of the stock price, insider trading, or fraudulent filings to protect the best interest of investors from trading in securities that are not compliant with disclosure.

One standpoint of this study is that outcome-based the quality of audit is indistinguishable from the quality of financial reporting. A lot of the past decade's scandals have been completely distorted and were on the Trading suspension list by the regulator. Many prior scandals have been associated with the exploitation of financial information completely through discretionary accruals recordings and hiding huge liabilities even in audited financial reports. (Knechel, 2009) stated that firms involved in actual accounting scandals, including many lesser-known companies are heavily involved in transactions whose accounting is technically accurate, it serves to confuse

an organization's financial health and performance primarily. Common trends and threats between companies associated with accounting and financial scandals are the lack of honesty, character, and transactions involving related parties (Carey & Simnett, 2006; Enofe, 2010).

From the mentioned situation, a key issue of this study was to ascertain whether the signals or characteristics of audit quality determinants could significantly mitigate the trading suspension propensity. So far, there is no literature studying the association between audit quality and trading suspension cases. The prior relevant pieces of literature that study audit quality mostly focus on how to measure audit quality but rarely include quality studies for examining audit characteristics to influence the stock trading irregular relationship, whereby over the past several years, many stocks have been banned from trading or SP because the stock price has increased "abnormally", which is considered to be a stock that has abnormally high speculation at the stock exchange. This may cause the stock price to rise far beyond the basics and may cause damage to investors. There are many criteria that may be used, starting from looking at the trading volume and the stock price. Several rules from each regulator have been issued to prevent this trading irregular, including looking back at the beginning of the quality of financial disclosure, which plays a crucial instrument in making investment decisions that it has been assured by the auditor with no material misstatement in term of information asymmetries before the user applies. Our study has made valuable contributions and attempted to find and determine whether there was a significant correlation between audit quality characteristics and stock irregularities by narrowing the observation to companies listed in Thailand on the MAI that have growth potential and may be more attractive to investors in term of alternative investment in addition to the main stock market like SET. This is a great contribution of a research sample to see how audit quality diversifies among small and medium businesses with funding constraints and less readiness in accounting resources and the system can minimize the information asymmetries via financial information quality management. Thus, investigation in small and medium-sized businesses with a disparity in financial disclosures is usefully appropriate to see how audit quality impacts differences in the quality of a company's financial information that is the important source of data for investors and users to analyse the ability of the business in the future, in particular, the market value reflects the fundamentals of the business including audit practices (credibility, independence, audit opinion, tenure, and other audit compositions). By studying that correlation, the determinants of audit

quality are used as an explanatory factor to mitigate or diminish the probability of trading suspension in listed companies in Thailand. The study employs the determinants of audit quality as explanatory variables to guarantee external investors the financial disclosure's creditability and thereby diminish information asymmetries (Anderson et al., 2004) which is one of the root causes of companies' trading suspension.

1.3 Research Questions

Several scholars have explored the links between audit practices with business performance and earning manipulation in different countries and contexts, but there is still no connection between audit quality and trading suspension cases. This provides an opportunity for this paper to apply the concepts in the irregular propensity of stock trading context via small and medium-listed companies as well as large, listed companies in Thailand. Therefore, this paper produces the following main research questions:

R1: Whether Audit Quality could mitigate the propensity of stock trading suspension?

R2: Does the relationship between Audit Quality and trading suspension propensity change after the outbreak of the pandemic, COVID-19?

1.4 Objectives

According to the research gap and motivations, this study points out a key objective to examine whether audit quality has a correlation to the probability of stock trading irregularity and whether could it significantly mitigate the trading suspension propensity in which way. This literature is interested in studying which is the major determinants of audit quality that affect trading suspension propensity with the purpose to study audit quality that affects success in business operations to establish reasonable assurance on the whole financial statements that will be free from misstatements of either error or fraud. The auditor can express opinions that are accurate and beneficial to the business, management, and users certify the financial statements and the risks that the auditor has assessed and can reasonably sufficient explanation of the business valuation which will reflect the change in share price with a legitimate reason.

The merit of the results reinforces whether the audit quality can be a key signal of mitigating the irregularity of stock trading and can it point out the importance of auditing in terms of the equality of financial disclosures needed for outsider users. Also, it would be useful for investors, creditors, management, and financial report user to create confidence in financial information in the financial reports to correctly represent the actual performance of the business and benefit the firm's valuation which is the core measure of financing and investment decision. In other words, they are able to make a prediction on the propensity of stock trading irregularities by applying audit quality in their decisions. Furthermore, another two aims are to provide insight into the increasing interest of corporates, audit firms, and related regulation organizations in the importance and improvement of audit quality with respect to the appropriateness of resource allocation in the future and to focus on the audit determinants or characteristics that influence the reduction of financial information inequality to prevent the misleading and mispricing of stock trading which may lead to enlarge the propensity of trading suspension in the stock market.

1.5 Contributions

Our study has made valuable contributions by focusing on the relationship between audit quality on trading suspension propensity and attempted to find and determine whether there was a significant correlation between audit quality characteristics and stock irregularities. The gap in the existing literature can fulfill by this study.

First, this study in particular focuses on the probability that stocks are triggered as trading suspension cases which are qualitative factors to represent the information asymmetries among investors. This is the major contribution of our research; whereby prior studies examine the audit quality influence on earning management and stock return but there is a scarce study about the quality of audit as an explanatory indicator to lessen the probability of trading irregularity. Past researchers apply these variables as control variables to see which are related to stock manipulation and earning management.

Second, our study focuses on stocks that triggered trading suspensions related to the 90 cases disclosed by the SET, attached in Appendix Table 2, and as far as we know the first

specialized research into the influence of audit quality on the trading suspension propensity. In addition, trading suspension cases interrogated and released by regulators compose only a small percentage of all feasible cases. (Comerton-Forde & Putniņš, 2014). Actual evidence-based research possibly faces the complexity of sampling bias. Consequently, we enhance a trading identification model referring to existing literature (Liu et al., 2022) to identify suspected abnormal trading cases by determining features or characteristics such as abnormal gaps of return, and share price reversals. Furthermore, the establishment of the trading identification model also allows additional information disclosed by regulators to be used to determine the impact on trading suspension propensity. Additionally, our trading identification model formed comprises the avoidance ability of delays in enforcement, and it is uniform, being unbiased of different enforcement across entities over time.

Third, the outcome of audit quality is likely to be time-varying, this study broadens the time scope covering 2016-2018 and 2020-2022 on a Panel data basis which partially takes in the risk from the pandemic or negative specific events and may extend to the earlier period if trading suspension cases occurred as a result of poor audit quality of one year before observation period. Accordingly, this paper could elevate the consistency of audit quality over time and further assist external investors, shareholders, and management to predict the probability to trading irregularity occur by using audit determinants.

All in all, our research findings contribute to an in-depth understanding of audit quality which is beneficial for related compliance and regulators seeking audit function improvement. The rising concern for the importance of audit quality regarding audit creditability and auditor independence motivates us to be interested and intentionally carry out this research. The Probit regression method is considered to estimate the pooled cross-sectional model in this research to produce the research question.

The rest of this study is structured as follows: the second section reviews the related literature on audit quality and trading suspension propensity as well as the establishment of hypotheses. The data and methodologies used are described in the third and fourth sections, respectively.

CHAPTER 2: LITERATURE REVIEW

This section evaluates the theoretical framework of this study and examines the concept and measurement of various factors, including audit quality, trading propensity, auditors' reports, and corporate earnings.

2.1 The Concept of Audit Quality

According to the International Auditing and Assurance Standards Board (Bédard et al., 2014), there have been numerous attempts to define the concept of "audit quality," but no universal definition has been agreed upon. Audit quality is a complex and multifaceted concept that can be defined in various ways. The most commonly cited definition, as proposed by (DeAngelo, 1981), emphasizes two key aspects of audit quality: (1) the audit firm's ability to detect misstatements; and (2) the independence and integrity of the auditor. The probability that an auditor will discover and report a material error, misrepresentation, or omission in the client's financial statements truthfully is considered a measure of audit quality.

Other scholars have proposed different definitions of audit quality. For instance, (Davidson et al., 1984) argues that audit quality is the accuracy of the information reported by auditors, while (Wallace, 2004) suggests that it is a measure of auditors' competence in reducing noise and bias and refining accounting information. (Davidson & Neu, 1993) add that the definition of audit quality depends on the auditor's ability to detect and mitigate material misstatements and earning manipulation. However, some studies have used the terms "audit firm quality" and "audit quality" interchangeably, without distinguishing between them.

Lam and Chang (1994) propose that audit quality should be determined on a service-to-service basis, as the audit firm may not conduct all audit procedures with the same level of quality. However, in cases where the auditor provides only one level of assurance service, the quality of the audit firm and the audit quality may be consistent with the assumptions in Field's(DeAngelo, 1981) definition.

Actual audit quality and perceived audit quality are distinct concepts. Actual audit quality is not observable and can only be evaluated after the audit has been conducted. Researchers have used various methods to measure actual audit quality, such as Palmrose's (1988) use of auditor prosecution activities and Deis & Giroux's (1992) analysis of quality control audits in the public sector. Krishnan & Schauer (2000) measured actual audit quality in the non-profit sector based on the consistency of audited financial statements with specific GAAP reporting requirements. However, the transferability of these findings to the for-profit sector is limited, as studies in the non-profit sector cannot be used to draw inferences for a for-profit setting.

Many studies use perceived audit quality as a way to assess the effectiveness of the audit process, as actual audit quality can be difficult to measure directly. (DeAngelo, 1981) Analysis suggests that larger auditors have fewer incentives to act opportunistically, leading to higher perceived audit quality. (Liang et al., 1995) study examines how SEC enforcement actions against Big 8 accounting firms impact market-perceived audit quality, while (Hogan & Pressley, 1997) finds that higher perceived audit quality is associated with lower underpricing in the IPO market. Although measuring actual audit quality can be challenging, market perception of audit quality can be more readily quantified and used as a proxy for effectiveness.

The quality of audits is influenced by a range of direct and indirect factors. Consistent with the stakeholder theory (Freeman et al., 2010), perceptions of audit quality can vary depending on the degree of direct audit involvement and the stakeholder's perspective on audit quality. Audit quality can be assessed from three primary perspectives: input factors, output factors, and contextual factors.

Audit quality input includes not only auditing standards but also individual auditor characteristics such as ethical values, attitude, mentality, skills, and experience. The audit procedure is another important input factor that includes the validity of the audit methodology, the availability of adequate technical support, and the effectiveness of audit tools for ensuring high audit quality.

The outputs of audits have a crucial influence on audit quality, which is determined by stakeholders evaluating the audit quality. These determinants include the auditor's report, which has a positive effect on audit quality if the outputs are reported clearly. In addition, the auditor's communication with those charged with governance on matters such as the qualitative aspects of the effectiveness of internal control and the entity's financial reporting practices can positively influence audit quality.

Contextual factors also play a significant role in audit quality, including good corporate governance that fosters ethical mentality and transparency within the organization. Laws and regulations establish an internal framework through which audits can be carried out effectively. Regulatory oversight, if effective regimes are established for monitoring audit quality in terms of the audit work, and effective dialogue between regulators and auditors are also essential. The applicable financial reporting framework is also critical; unclear and vague disclosures may adversely affect relevant external perceptions and audit quality.

2.1.1 Audit Quality Measurements

As of now, the measurement of audit quality structures does not seem to be an agreed-upon metric in the public (Gerayli et al., 2011; Knechel et al., 2009). (DeAngelo, 1981) developed the standard for measurement with a two-dimensional definition of audit quality. First, material misstatements must be discovered, and second, those misstatements must be reported to stakeholders, management, and governance. Since 1981, various dimensions of the quality of audits have been studied, defined, and measured by accounting studies. According to (DeAngelo, 1981), larger audit firms conduct better audits due to their reputation being more at stake and the ability to attract highly skilled workers with more resources. Some suggest that large audit firms command premium fees because their greater wealth reduces their clients' risk of lawsuits. It is unclear if there is an actual audit quality difference between large and small firms, but there is a perception that large firms have higher quality due to their reputation. Most studies use audit firm size to differentiate the degree of audit quality, particularly Big8, Big6, or Big4 versus non-Big8, non-Big6, or non-Big4 (Becker et al., 1998; Copley, 1991; Krishnan, 2003; Zhou & Elder, 2001).

Companies audited by the Big4 have higher audit quality than Non-Big4 audited firms. Furthermore, studies have demonstrated that firm audits by Big4 have a negative impact on earnings management. Overall, audit quality is influenced by various factors, and the relationship between audit firm size and audit quality is not entirely clear (Hessayri & Saihi, 2015; Siagian & Tresnaningsih, 2011).

Several studies have used audit fees as a measure of audit quality. For example, (Palmrose, 1986) found a significant relationship between audit firm size and audit fees as measured by the Big 8 versus non-Big 8 dichotomy. (Copley, 1991) found that using audit fees as a measure of audit quality was more effective than the Big 8 versus non-Big 8 dichotomies in describing the degree of variation in disclosures for local government.

Additionally, companies may switch auditors to ensure the quality of audit services. The separation of ownership and control and the segregation of risk responsibilities, decision-making, and control function in the company can create a principal-agent problem (Fama & Jensen, 1983), leading clients to switch auditors (Jensen et al., 1972).

Much of the previous academic research on this topic has focused on signaling theory or the role of the auditor in explaining why clients switch auditors. According to signaling theory, clients switch auditors to signal or convey the quality or reliability of their financial statements through the types of auditors they engage (Bagherpour et al., 2010). Both archival and analytical studies (Balvers et al., 1988; Willenborg, 1999) support the information or signaling role of auditor choice.

One very common reason for an audit switch is the qualification of the auditor's opinion. Research has shown that entities that receive unclean audit reports are more likely to switch auditors (Chow & Rice, 1982; Geiger et al., 1998; Vanstraelen, 2003). Maybe it is because the controlling shareholder or the management believes that once the auditor is left, the company can find a more reliable auditor whose opinions consistently arise with management's views (Chow & Rice, 1982). This variable was expected to have a positive correlation with auditor switching. (Aghaei Chadegani et al., 2011) examined the relationship between the likelihood of auditor

switch and the auditor's opinion but found no significant correlation between audit switch and qualified reports.

Privatization policies and audit competition rapidly increase signal incentives for listed companies and agency costs, which can be linked to auditor switching incentives. In emerging stock markets such as the SET and MAI, the role of auditors with respect to minimizing conflicts of interest in financial reporting decisions is potentially more crucial than in the case of developed markets. As a consequence, conducting an investigation into factors affecting the change of auditors has become very important which can impair auditor independence and ultimately audit quality.

Audit Independence may mean the auditor's unbiased impartial attitude in making decisions throughout auditing and financial reporting. The quality of being free from influence, persuasion, or bias represents independence. If a lack of independence occurs, greatly impairs come to the value of audit services (Sweeney, 1994). This means that auditors will unlikely report discovered violations. Previous studies have confirmed that the high fees that companies pay to external auditors increase the economic bond between clients and auditors, and thereby fees may impair the auditor's independence (Frankel et al., 2002). Independence impairment results in poorer quality of audit and allows more earning management. This study used the audit fee to indirectly represent independence and did not use an Audit independence account to avoid the circularity of testing.

In summary, DeAngelo (1981); Palm Rose (1988); Deis & G. Roux (1992); Becker et al (1998); Francis & Krishnan, (1999); Krishnan & Schoer (2000); Kim, and Krishnan, (2003) accept that audit quality is a function of audit firm size and it appears that the larger audit firms have more measurement capabilities of Audit Quality and could be represented by Audit Independence measuring via Audit fees, Audit Switch and Audit’s opinion in both positive and negative direction. (Wooten, 2003) found that the detection of material misstatements is dominated by how well the audit engagement team performs the investigation. This, in turn, is dominated by management resources and the audit firm's quality control system.

2.2 Trading suspension propensity, Auditors Reports, and Corporate Earnings

Providing reliable, relevant, and sufficient financial information through the principles of disclosure is crucial for stakeholders to make rational decisions. Specifically, investors require audited financial reports to evaluate the risk, predict expected returns, and make investment decisions. An external audit of a company's financial statements plays a critical role in administering and monitoring this financial reporting. The audit provides reasonable assurance to stakeholders and potential shareholders that the financial statements are free from material misstatement (Watts & Zimmerman, 1986) and mispricing. Investors value audit reports as a means to improve the financial information reported by companies.

Nevertheless, the lack of addressing accurate or current financial information and suspected manipulative and fraudulent activities imply the major issue regarding trading suspension propensity is to which extent a number of reasons, including:

1) Lack of current, accurate, or sufficient information about the company, for example, when periodic reporting is untimely.
2) Questions about the accuracy of publicly available information, including the content released at the latest press conference.
3) Concerns about stock trading, such as insider trading or market manipulation.

The related regulator has the power to suspend securities trading in order to protect investors in accordance with the Securities Exchange Act. The trading suspension is required for the public interest and for the protection of investors. When stock trading is suspended, shares will not be tradable until the suspension is lifted or expired. Suspension time will be determined on a case-by-case basis. The Company may suffer long-term consequences from the suspension of trading.

Similar studies, including (Cohen & Zarowin, 2008; McNichols & Stubben, 2008), have focused on the impact of earnings manipulation on stock prices related to the misrepresentation of earnings. Specifically, these studies examined the effects of earning management activities on various corporate events, such as IPOs, stock acquisitions, and share buybacks. The research

investigated the relationship between earning management and post-event unusual stock returns, as well as short-term market reactions to fraudulent report announcements. Studies conducted by (Foster, 1979), (Dechow et al., 1996), (Beneish, 1997), and (Palmrose et al., 2004) suggest that manipulation disclosures typically have a negative impact on the market. This evidence indicates that investors were surprised by the news and interpreted it as unfavourable.

Certain exogenous factors may contribute to the unusualness of stock trading patterns. To control for these factors, the study examines several control variables, Market to Book Value (MBV) of equity, Return on Assets (ROA), Earnings Per Share (EPS), Operating Cash Flow (OCF), Leverage (LEV), Company Size (Coysize) and Discretionary Accruals (DA).

2.2.1 Market to Book Value (MBV) of Equity

The Market-to-Book Value of equity ratio is a factor that may potentially impact a company's earnings and earnings management. To account for this, its earnings are encouraged as a control variable in the estimation model. This ratio is a measure of a company's growth opportunities and can have an effect on both its earnings and stock value (Zhou & Elder, 2001). The ratio represents the discrepancy between a company's market capitalization and its book value, which reflects the extent to which undisclosed or hidden assets are reported. A high MBV ratio indicates that a company's market value is overestimated in comparison to its book value.

2.2.2 Return on Assets (ROA)

Return on Assets (ROA) is a financial ratio that measures a company's profitability in relation to its total assets. It is a useful metric for corporate management, analysts, and investors to assess how effectively a company is using its assets to generate profits. ROA is typically expressed as a percentage using a company's net income and average assets. A higher ROA indicates that the company is more efficient and effective at managing its balance sheet to generate profits. Conversely, a lower ROA suggests that there is room for improvement in terms of asset utilization to increase profitability.

2.2.3 Earnings Per Share (EPS)

Earnings per share (EPS) is a financial metric calculated by dividing a company's earnings by the number of common shares it has issued. EPS serves as an indicator of a company's profitability, showing how much money the company generates for each share. This widely used metric is also used to estimate the value of a business. A higher EPS suggests that a company is more profitable, and investors are willing to pay more for its stock if they believe its earnings are higher relative to the stock price. Therefore, higher EPS can be seen as an indication of greater business value.

2.2.4 Operating Cash Flow (OCF)

One hypothesis is that companies with high cash flow engage in lower revenue irregular accruals to smooth out their earnings. (Becker et al., 1998) found a negative relationship between cash flow and discretionary accruals. In this study, the indirect measurement method was used for all years. This involved subtracting net income before extraordinary items from total accruals to derive operating cash flow (OCF), which was then deflated by prior year assets. OCF serves as a performance measure (Dechow et al., 1996) and was used to control potential misspecifications in the model (Vander Bauwhede et al., 2000). A negative coefficient is expected for OCF, indicating that it is negatively associated with discretionary accruals.

2.2.5 Leverage (LEV)

Previous studies have indicated that leverage may have a significant impact on a company's earnings and market value (Becker et al., 1998; DeFond & Jiambalvo, 1994). According to this research, managers may manipulate earnings accruals to avoid or delay the cost of debt covenant, and leverage is often used to control the potential effects of earnings and the market value of equity instruments. It is expected that there will be a positive correlation between market value per share and leverage (LEV). The debt-to-equity hypothesis (Watts & Zimmerman, 1986) suggests that high leverage creates an incentive for companies to increase earnings management. Therefore, leverage is included as a control variable in highly leveraged companies.

Additionally, Becker et al (1998) suggested that leverage can be used as a proxy for manipulation to increase potential earnings in financially struggling companies.

2.2.6 Company Size (Coysize)

The political cost (size) hypothesis proposes that larger companies, particularly those with a significant political presence, may feel more pressure or scrutiny to avoid negative attention or criticism. As a result, they may be more likely to use accounting methods that decrease reported revenue. To account for this effect, the size of the company is included as a control variable in the study, and it is expected to have a negative impact on irregular accruals. This is because larger companies may be more inclined to use accounting methods to reduce reported revenue, resulting in lower irregular accruals (Vander Bauwhede & Willekens, 2000). The size of the company is measured by its total assets, and a negative coefficient is expected based on the political cost hypothesis.

2.2.7 Discretionary Accruals (DA)

According to (Francis et al., 1996), companies with a greater potential for generating accruals were more uncertain about their reported earnings. This is because it is challenging for outsiders to identify accrual abnormalities when using total accrual, as done in previous studies such as (Becker et al., 1998). To account for this, the absolute value of accrual is included in the model as a control variable. The aim is to examine if firms with high absolute total accruals have more inherent potential for earnings management.

Discretionary accruals have been a common measure in earnings management studies, as seen in (Jones, 1991) and (Subramanyam, 1996). Different methods have been employed to estimate discretionary accruals, and this study uses the Modified-Jones Model (Dechow et al., 1995). This model has shown superior performance in detecting earnings management compared to other models (Dechow et al., 1995), and it is widely used in accounting literature (DeFond & Subramanyam, 1998; Guidry et al., 1999).

The equation used to find the discretionary accruals is:

Discretionary Accruals = Total Accruals - Non-Discretionary Accruals

Total accruals are calculated as the difference between the net income and cash flow from operations. Non-discretionary accruals are calculated using a regression model to determine the normal relationship between cash flow and changes in non-current assets and liabilities. Any deviations from this normal relationship are considered discretionary accruals, which are then used in the analysis to assess earnings management practices. The Modified-Jones Model, as mentioned earlier, is a commonly used regression model to estimate non-discretionary accruals, so the following equation is used to find the discretionary accruals.

$$TA_{i,t} = DA_{i,t} + NDA_{i,t}$$

Where: $TA_{i,t}$ = total accruals for company i in time period t; $DA_{i,t}$= Discretionary Accruals for company i in time period t; $NDA_{i,t}$ = Non-discretionary Accruals for firm i in time period t

Empirical estimation of the modified Jones model is required to compute total accruals. Based on previous research (Healy, 1985; Jones, 1991), we use the cash flow approach to compute total accruals involves subtracting operating cash flow (OCF) from net income before extraordinary items (NIBE) and is expressed in the following equation:

$$TA_{i,t} = NIBE_{i,t} + OCF_{i,t}$$

Where: $NIBE_{i,t}$ = company i's net income before extraordinary items in year t; $OCF_{i,t}$ = company i's net cash flow from operation in year t

This approach is commonly used in accounting research to estimate total accruals and is based on the assumption that operating cash flow reflects the company's operating performance, while net income includes both operating and non-operating items, such as gains or losses from the sale of assets. The difference between net income and operating cash flow is assumed to represent accruals, both discretionary and non-discretionary. By using the cash flow approach, we

can estimate the total accruals, which can then be used to estimate the discretionary accruals using the modified Jones model.

To estimate the discretionary accruals ($DA_{i,t}$) for a specific company i in a given year t, the following cross-sectional regression is performed:

$$TA_{i,t}/A_{i,t-1} = \alpha_1(1/A_{i,t-1}) + \alpha_2(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1} + \alpha_3(PPE_{i,t}/A_{i,t-1}) + \varepsilon_{i,t} \quad (1)$$

Where:

$\Delta REV_{i,t}$ = company i's change in revenues in year t, $PPE_{i,t}$ = company i's gross value of property, plant, and equipment in year t, $\Delta REC_{i,t}$ = company i's change in accounts receivable in year t, and we have deflated by company i's total assets in year t-1($A_{i,t-1}$).

The coefficients (α_1 to α_3) are estimated using Ordinary Least Squares (OLS) regression, and the predicted value of $\Delta REC_{i,t}$ (i.e., the value obtained by plugging the observed values of the independent variables into the regression equation) is subtracted from the actual value of $\Delta REV_{i,t}$ to obtain total accruals ($TA_{i,t}$). The outcomes of coefficient are presented in Appendix, Table 4.

We then use the firm-specific parameter estimates from (1) to estimate firm-specific Discretionary accruals ($DA_{i,t}$) for company i in year t as a percent of lagged total assets; that is,

$$NDA_{i,t} = \hat{\alpha}_1(1/A_{i,t-1}) + \hat{\alpha}_2(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1} + \hat{\alpha}_3(PPE_{i,t}/A_{i,t-1})$$

In turn, Discretionary accruals ($DA_{i,t}$) for company i in year t are:

$$DA_{i,t} = TA_{i,t}/A_{i,t-1} - NDA_{i,t}$$

2.2.8 COVID-19 pandemics (Covid)

According to Suffield (2020), the auditing profession is significantly affected by the impact of the coronavirus pandemic. Auditors are facing increased pressure to complete their audit work and encounter challenges in obtaining audit evidence, particularly in areas such as going concern.

The pandemic also has specific implications for auditing firms, as the audit process involves direct interaction with the audited entity. Despite advancements in digital technology, the crisis has disrupted normal activities associated with client engagement. A notable number of individuals have reported experiencing work pressures, missed reporting deadlines, and difficulties in collecting audit evidence due to the pandemic's influence (Covid-19 having a noteworthy influence on the Auditors of the World, 2020).

Duh, Knechel, and Lin (2020) found that a considerable proportion of individuals have observed an increase in auditing risk related to the completeness of liabilities and valuation of assets, particularly in relation to going concern issues. Numerous factors impact a business's ability to continue, including geographical location, industry, the financial health of suppliers and customers, solvency, and financial liquidity. The unprecedented challenge posed by the COVID-19 pandemic has compelled organizations worldwide to manage their supply chains, adhere to government directives, restrict travel, limit social contact, and mitigate the risk of coronavirus infection.

Harb (2020) asserts that as the pandemic spreads, businesses face challenges associated with a general economic downturn. These challenges include erosion of market value, liquidity concerns, financial market volatility, credit deterioration, increased government intervention, reduced consumer discretionary spending, rising unemployment, supply and demand constraints leading to decreased production, and the need to optimize inventory levels and engage in restructuring activities. The ongoing situation has the potential to have a prolonged adverse impact on the financial condition and outcomes of businesses. The Jordanian audit bureau has conducted ex-post audits to assess crisis mitigation measures.

According to Shahzad, Rubbaniy, Pouw, and El-Temtamy (2017), auditors play a crucial role in the development of financial markets and the promotion of publicly listed companies. They enhance trust between organizations and investors by providing an independent opinion on the accuracy and fairness of financial statements.

As studied by Albitar, Gerged, Kikhia, and Hussainey (2020), the outbreak of the coronavirus pandemic has introduced complexities and uncertainties in audit work, highlighting the need for adequate workforce support. Reports of audits with uncertainties are commonly issued during this period due to doubts surrounding a company's continuity. The COVID-19 pandemic has also affected the performance of analytical procedures, which are integral to the audit process encompassing planning, fieldwork, conclusions, evaluations, and reporting stages.

The increased risk of fraud poses a potential threat to the quality of auditing. However, relying on various alternative explanations without consistent critical thinking may have adverse effects (Shakhatreh, Alsmadi, and Alkhataybeh, 2020). Auditors have relied more on analysis processes to gain a comprehensive understanding of a company's financial position. This reduced the reliance on detailed tests, which are time-consuming, particularly given the reliance on email communication during the pandemic.

The quality of audit evidence is crucial to ensure accurate conclusions. The spread of the coronavirus has prompted auditors to depend more on evidence from external sources, such as suppliers, banks, and customers, which are deemed more reliable compared to evidence obtained from clients. However, the pandemic has also impacted the use of original forms of evidence, like invoices, which are considered more reliable than mailed copies. As a result, the shift to remote work strategies affects the reliability, sufficiency, and subsequently, the quality of audit evidence.

2.3 Theoretical Framework

Basically, agency theory, signaling theory, and the auditor's theory of inspired confidence are all important in explaining the role of auditing in companies. Auditing serves as a mechanism to reduce information asymmetry between parties, which is necessary due to agency problems caused by the separation of ownership and control in companies (Eilifsen & Messier Jr, 2000; Gerayli et al., 2011). The presence of information asymmetry in principal-agent contracts is a key reason for the need for auditing.

The presence of asymmetric information between corporate executives and shareholders has been identified by several studies (Dye, 1988; Schipper, 1989; Trueman & Titman, 1988; Warfield et al., 1995) as a necessary condition for earnings manipulation and financial statement misreporting. To minimize this information asymmetry and protect the interests of principals, a company's audit serves as a monitoring and control mechanism. The auditor's inspired confidence theory provides a link between the need for trustworthy and reliable financial reports by users and the ability of audit procedures to meet those needs. This theory, developed by the Limperg Institute in the Netherlands in 1985, states that the auditor, as a confidential agent, derives their functions in society from the need for expertise, independence, and independent judgment. Therefore, accountants and auditors must be aware of the public's expectation for low rates of audit failure and conduct the audit in a manner that minimizes the risk of undetected material misstatement. The accountant has an obligation to perform their duties without betraying the trust they command (Limperg, 1985).

The theory of inspired confidence holds great significance in defining the auditor's duty and responsibility, which is based on publicly available assurance about the success of the audit procedure and the opinion of the accountant. The existence of the audit process depends on this confidence, and any betrayal of it would lead to terminating the process or function. (Carmichael, 2004) highlights the social significance of audits and argues that if society's confidence in the effectiveness of audit processes and reports is misplaced, the value of the audit is destroyed. Hence, auditors are expected to maintain reasonable quality assurance, as the failure to do so could have severe consequences. The audit process instills confidence in the owners, management, investors, and stakeholders of a company, and, in combination with financial reporting, corporate governance, and regulations, supports the confidence of the capital market.

Transmission of signals through auditor selection is an important signaling mechanism for companies as it sends a message to the market about the quality and reliability of financial statements. The agency theory explains that managers or executives may use auditor selection to provide the market with additional information about the company and its behavior. On the other

hand, the signaling theory suggests that well-performing companies use financial disclosures, including auditor selection, to send signals to the market. Research by (Craven & Marston, 1999) supports this idea by showing that companies tend to adopt a similar level of disclosure to their peers in the same industry. If a company does not comply with the same level of disclosure as others, stakeholders may perceive it as concealing negative information. Since the types of financial statements are standardized, companies are incentivized to send signals through auditor selection, as this can differentiate them from their peers. Therefore, companies carefully choose their auditors to signal their commitment to transparency and reliability, which can increase market confidence and support capital market activities.

Having a qualified auditor present during voluntary disclosures can enhance the credibility of the signals being sent to the market. The market tends to perceive larger audit firms and more experienced auditors as higher quality, and this can affect the trading of companies (Krishnan & Yang, 1999; Menon & Williams, 1994; Teoh & Wong, 1993).

According to signaling theory, it is not necessary for the audit quality to be higher; instead, companies want the market to believe that top-tier companies are associated with higher-quality audits because they can charge higher fees (Moizer, 1997). Companies may want to signal to stakeholders that their interests are being well pursued, as the market's perception of a company's auditor quality can influence its stock trading. Therefore, signaling should have an impact on audit quality requirements beyond just the monitoring function.

Positive signals of transparency and credibility that are conveyed to the market, along with assurances given to stakeholders regarding the quality of performance disclosures, are indicative of a negative correlation between irregular trading and audit quality.

CHAPTER 3: RESEARCH HYPOTHESIS

To answer the research questions, we have developed five hypotheses as follows;

3.1 Audit Firm Size Hypothesis:

The paper needs to deeply study whether the size of audit firms has a negative impact on trading suspension propensity, given the indefinite outcomes of prior works of literature. According to (Salehi et al., 2009), audit firm size serves as a proxy for audit quality, meaning that larger firms possess a greater reputation to uphold and are able to provide more independent, high-quality audit services. These firms have access to financial resources, research facilities, superior technology, and skilled employees who can accurately detect problems related to misstatements in auditing large companies. In contrast, smaller audit firms have a limited client portfolio and may be more susceptible to management pressures, while offering more personalized services (Lys & Watts, 1994). The capability of detecting misstatements assuages the information asymmetric among financial information user, and therefore mitigate the probability of trading suspension so the first hypothesis states:

Hypothesis 1: Audit Firm Size significantly influences the mitigation of Trading suspension propensity.

In this research we measured the size of the audit firm (AUDFS); given the probability that the sample firm uses the services of one of the Big 4 audit firms (Akintola Williams Deloitte, Pricewaterhouse Coopers, Ernst and Young, KPMG), the dummy value is 1 if the firm uses the Big 4 audit firms. either, or 0 otherwise.

3.2 Audit Switch Hypothesis:

A decision to switch auditors involves changing the acting auditor which results in the selective quality of different audit firms to adjust the attribute of the audit firms to meet the growing demands of customers under changing circumstances (Liu et al., 2022). The two most common reasons for changing auditors are perceptions that fees are too high and lack of

satisfaction with the services served by the predecessor auditor (Bedingfield & Loeb, 1974). Companies change auditors more often after receiving a qualified opinion and then an unsubstantiated opinion not obtained (Chow & Rice, 1982). Failing firms are more likely to change auditors than healthy firms (Schwartz & Menon, 1985). To convey research questions, this study tested the relationship between the audit switch and the probability to trigger a Trading suspension. In other words, the study sought to determine whether the change of auditor affected the opportunity that companies will be notified as SP due to the concealing of misstatements in financial disclosures by non-independent auditors among listed companies. Companies with auditor switches have a great tendency for a higher possibility to be raised as Trading suspension. Therefore, following the arguments the second hypothesis is:

Hypothesis 2: There is a positive significant correlation between Audit switch and Trading suspension propensity.

3.3 Audit Fee Hypothesis:

The impartiality of auditors in decision-making throughout the audit and financial reporting process is commonly known as audit independence. Independence refers to the quality of being free from influence, persuasion, or bias, which is essential for providing high-quality audit services and reports (Sweeney, 1994). The absence of auditor independence increases the risk of being perceived as biased, and auditors may fail to report discovered violations (DeAngelo, 1981). Previous studies have identified several factors that influence auditor independence, including non-audit services (NAS), audit fees, competitive level, auditor tenure, audit firm size, and audit committee (Carey et al., 2000; Erlich et al., 1982; Firth, 1997; Gul, 1989; Houghton & Ikin, 2001). In this study, the Audit Fee (AUDFE) was used as a measure of auditor independence, calculated as the natural logarithm of the audit fees paid by the client. Studies have suggested that high fees paid by companies to external auditors may compromise auditor independence by increasing the economic bond between auditors and clients (Frankel et al., 2002; Li & Lin, 2005). A lack of independence can result in lower-quality audits and increase the risk of manipulation and trading irregularities (Okolie & Izedonmi, 2014). The International

Auditing and Assurance Standards Board (IAASB) (2010) defines independence as the prospective behavior of the auditor, indicating that they have no personal interest in their work, which is necessary for maintaining objectivity and integrity. Without independence, an auditor's opinion is useless since its purpose is to increase the credibility of the financial statements as management's assertion. The lack of independence can be a major vulnerability that leads to inaccurate disclosure of financial information and creates opportunities for those with more information to exploit unfair stock trading, which can trigger a trading suspension. Based on this argument, the third hypothesis of this study is:

Hypothesis 3: There is a positive relationship between the change in audit fees and the trading suspension propensity.

3.4 Audit Tenure Hypothesis:

In this study, auditor tenure is defined as the length of the auditor-client relationship. A long-standing relationship between an auditor and their client can pose a threat to independence, as it may lead to the development of personal relationships and familiarity between the parties, resulting in less caution on the auditor's part and a more obliging attitude towards senior management of the company. Furthermore, over time, the performance of the audit engagement may become routine, and the auditor may expend less effort in identifying internal control deficiencies and sources of risk (Okolie & Izedonmi, 2014). In this study, auditor tenure (AUDTEN) was measured as follows: "1" if the auditor-client relationship lasted between 1-3 years, "2" if the relationship lasted over 3 years, and "0" if otherwise. A long-standing relationship between the audit firm and the client may lead to a close relationship between the audit firm and the client's management, making it difficult for the auditor to express their professional opinion and impairing audit quality. Previous research by (Barkess & Simnett, 1994); (Bloemer et al., 1999) (as cited in (Bamber & Iyer, 2007)); Protect et al. (2002), Geiger and Ragunandan (2002), and Carcello and Nagy (2004) have shown that long tenure in an audit engagement leads to a decrease in the tendency to issue qualified audit reports. Gratification, lack of innovation, and rigid audit procedures, as well as learned confidence, may occur after a long

association with a client (Erlich et al., 1982). An experimental study by Knapp (1991) sought to establish a link between audit tenure and proficiency. The study found that the feasibility of auditors detecting anomalies increases in the early years and then gradually decreases. Thus, overall, a positive relationship is often assumed between the auditor tenure and the trading suspension propensity which is partially originated by lower quality of detecting distortion. Therefore, the fourth hypothesis is:

Hypothesis 4: An extended period of auditor-client association (audit tenure) is associated with a higher trading suspension propensity.

3.5 Qualified Audit Opinion Hypothesis:

One very common reason pointing to the quality of financial information is the qualification of the auditor's opinion. Previous research has found that clients who receive unclean audit reports are more likely to misunderstand the content defined in the company's financial statement and misinterpret the company's performance and its value, perhaps leading informed users or internal management to take advantage of the unusual trading transaction since external investors and users believe that the financial statement assured by the external auditor can be relied on and use that information for their decision.

Furthermore, Prior research has found that unclean audit reports have more tendency to switch auditors (Chow & Rice, 1982; Geiger et al., 1998; Vanstraelen, 2003), possibly because management or the controlling shareholder believes that when the former auditor is terminated Companies are able to find credible auditors whose views are consistent with management's views (Chow & Rice, 1982; Vanstraelen, 2003). This variable is expected to be positively correlated with auditor switching and triggering of trading suspension propensity. Thus, the last hypothesis is:

Hypothesis 5: There is a positive correlation between Qualified Audit Opinion on Trading suspension propensity.

3.6 COVID-19 Hypothesis:

Contrary to the prevailing belief that the COVID-19 outbreak is not a financial crisis, the authors in the aforementioned study titled "Auditing in times of social distancing: the effect of COVID-19 on auditing quality" (Albitar, Khaldoon, et al., 2020) maintain a distinct perspective. They posit that the consequences of the COVID-19 pandemic represent the most challenging hurdle for auditors and their clients since the global financial crisis of 2007–2008. Specifically, the authors contend that the implementation of social distancing measures prompted by the pandemic can significantly impact several facets of auditing, including audit fees, assessment of going concern, human capital within auditing, audit procedures, salaries of audit personnel, and overall audit effort. Consequently, these factors can have a profound influence on the quality of audits. Therefore, the sixth hypothesis states

Hypothesis 6: The relation between audit quality and trading suspension propensity during COVID-19 changes relative to the previous pandemic period.

CHAPTER 4: DATA AND METHODOLOGY

4.1 Sample and Data

This study utilizes secondary data to explore the correlation between independent and dependent variables. The data samples were sourced from Refinitiv DataStream, annual reports, and financial statements, which provide information on global economic, financial, and business trends.

4.1.1 Observation Periods

The study covers listed companies that have trading suspension propensity within the 2016-2018 and 2020-2022 periods, which were categorized as the Pre-Covid and Covid eras, respectively. The data on trading suspension propensity that occurred in 2019 was dropped from consideration to avoid data redundancy in an aspect of explanatory variables. Although, the empirical test was estimated by Pooled Cross-Sectional model. However, the data collection approach for explanatory variables (independent variables) is based on Panel data including lag time T-1, 2015 to 2018 for Pre-Covid and 2019 to 2022 for the Covid period as shown in Figure 1.

Including lagged independent variables, such as the time t-1 value, in the analysis can serve as a preventive measure against the issue of reverse causality and enhance the accuracy of assessing the impact of independent variables on the dependent variable.

Reverse causality arises when the relationship between variables is bidirectional, meaning that the dependent variable can exert an influence on the independent variable. By incorporating lagged independent variables, a temporal delay is introduced between the independent variable and the dependent variable, thereby establishing a causal relationship.

The inclusion of lagged variables permits the capture of the effect of past independent variable values on the current value of the dependent variable. This facilitates the examination of the direction and magnitude of the causal relationship and aids in controlling for reverse causality by accounting for the temporal sequence of events and potential feedback loops.

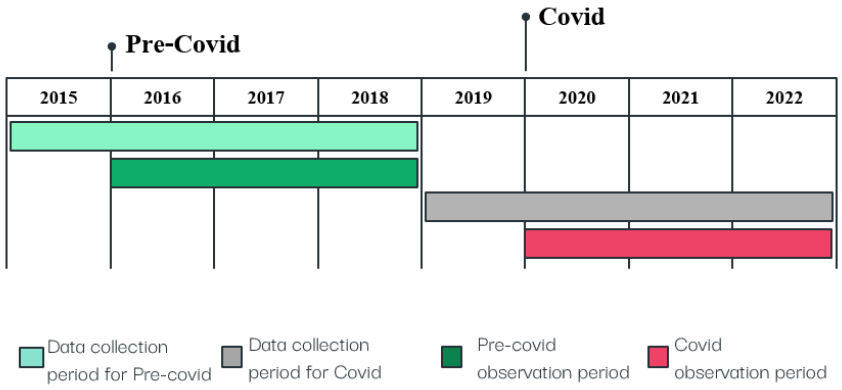

Figure 1: Observation periods

4.1.2 Markets

To select the markets, external statistics were used as a framework, and the Market for Alternative Investment of Thailand was chosen due to the following reasons: First, the target companies were relatively small-sized with low market value and high P/E ratio. Second, stocks with a higher yield, turnover, volatility, beta, and a greater risk of abnormal trading transactions were chosen based on market performance. The results above of descriptive statistics are consistent with intuition and the literature countries in Thailand which has a lower market value and higher P/E ratio than many developed and developing countries. Referring to MSCI, Thailand computed a Forward P/E ratio of 18, relatively higher than several countries and close to the United States of America, while with a smaller market capitalization. Moreover, Thailand has trading suspension cases sufficient to be counted as our observations. Additionally, we extended our sample to cover the listed company from the Stock Exchange of Thailand (SET50) to prevent the quality bias of the mimic company and allow for more variation in the dataset. The listed companies in the database comprise various industries such as Property & Construction, Services, Industrial, Technology, Consumer Products, Resources, Financials, and Agro & Food Industry. Although they are in the same market, they have dissimilarities such as business operation, business structure, business model, customers, internal control, financial data, etc. that might be affected by audit quality in diverse ways. Although the primary audit procedures are maintained, its attributes are diverse with each company following the operating model of the entities and

different inherent risk assessments. Hence, the audit qualities are investigated comparatively in the empirical part.

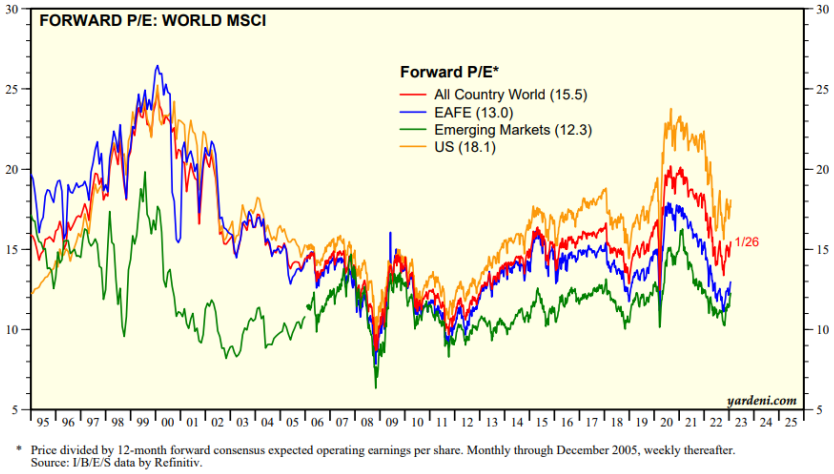

Figure 2: Forward P/E across the World

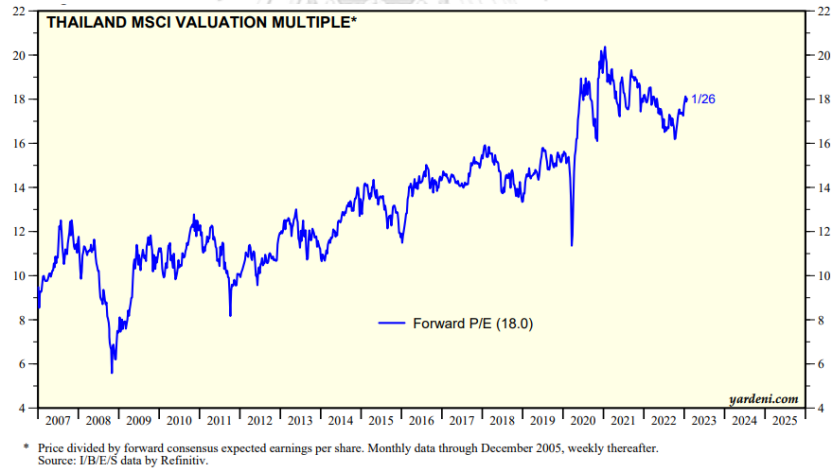

Figure 3: Forward P/E in Thailand

4.1.3 Sources of Data

The financial information measuring the firm performance in the samples was also retrieved from secondary data, especially the annual report, the financial statements, and notes, and Refinitiv DataStream, whereby the actual trading suspension cases reinforced by SEC were directly collected from SETSMART. Entire monetary data is presented in Thai Baht, which is the official currency of the Kingdom of Thailand. Overall, this study aims to gain insight into the importance of audit quality in the chosen markets.

4.2 Variables

In the study, three sets of variables were identified, namely dependent variables, independent variables, and control variables. These variables have been widely used in the relevant literature.

4.2.1 Dependent Variables

The dependent variable is the dummy variable of trading suspension propensity (SP) which is indicated a stock-triggered trading suspension by the SEC with an "SP" sign during the observed period (SP_Actual) and suspected trading suspension cases contributed by the modification of the identification model (SP_Suspect) that was amended from the prior study (Liu et al., 2022). This modification involved incorporating the market index returns and making certain adjustments to mitigate potential biases in the data interpretation of suspected trading suspension cases. The aim was to accurately distinguish between macroeconomic factors that impact the overall market indexes and firm-specific events that may involve unusual trading when identifying suspected trading suspensions. The trading suspension propensity reflects the company's probability of lacking current, accurate, or sufficient information, respectively. There is a high likelihood of questions about the accuracy of publicly available information and a high level of concern about stock trading, such as insider trading or market manipulation. Another proxy is asset turnover calculated from total revenues divided by total assets which represents the efficiency (Uyar et al., 2021). The dummy value is '1' if the company triggered for Trading

suspension by 1 time in each observation period, ‘2’ if triggered 2 times or more in each observation period either, or ‘0’ otherwise.

In particular, the paper presents two identification model attributes: abnormal returns; and stock price reversal, to contribute to suspected trading suspension cases.

1) An abnormal gap of return: a situation where the closing price of a stock is significantly higher than the closing price of the previous trading days. In this study, the mean and standard deviation of gaps in the previous 30 trading days are used to determine whether the gap of the day is abnormal or not. Specifically, if the gap of the day exceeds the mean by 4 standard deviations, it is considered an abnormal gap of return.

$$Return_{i,t} - Return_{index,t} > (\overline{Return_{\imath,t} - Return_{\imath index,t}}) + 4\sigma_{i,t} \quad (1)$$

Of which, $Return_{i,t} = \frac{ClosePrice_{i,t} - ClosePrice_{i,t-1}}{ClosePrice_{i,t-1}}$ is the gap of stock *i* on day *t*, $Return_{index,t} = \frac{ClosePrice_{index,t} - ClosePrice_{index,t-1}}{ClosePrice_{index,t-1}}$ is the gap of an *index* on day *t*, $\overline{Return_{\imath,t} - Return_{\imath index,t}}$ and $\sigma_{i,t}$ are the mean and standard deviation of the overnight gaps of excess return in the previous 30 trading days of stock *i* and *index*.

2) Price reversal: a situation where the direction of a stock's price movement changes abruptly. In this study, the magnitude of the price reversal is measured by the percentage change in the stock price. Specifically, a price reversal is considered to have occurred if the percentage change in the stock price reaches or exceeds 100%.

$$PriceReverse_{i,t} = \frac{ClosePrice_{i,t} - ClosePrice_{i,t-1}}{ClosePrice_{i,t-1} - ClosePrice_{i,t-2}} \leq -100\% \quad (2)$$

4.2.2 Independent Variables

The independent variables in this study are determinants of audit quality. Differences in audit quality can lead to variations in the credibility of auditors and the reliability of companies' financial reports, which may result in absorbed misstatements. In order to estimate the quality of the audit, this study breaks down the most commonly applied substitutes as follows:

1) Audit Firm Size (AUDFS); A binary variable indicating whether the audit firm is a Big-4 firm (coded as '1') or a non-Big-4 firm (coded as '0'). The capability of auditing is associated with a higher reputation for safeguarding quality audit services, financial strength, research facilities, advanced technology, and skilled employees for detecting misstatements.
2) Audit Switch (AUDSW); changing auditors leads to the quality selection of differentiated auditors to align the characteristics of the auditor to meet the growing demands of clients under changing circumstances and fulfill satisfaction with the services provided by the inventive auditor. This variable is measured as Frequency to switch auditor: ‘1’ if switch the auditor, either and ‘0’ if otherwise.
3) Audit Fees (AUDFE); employing to measure the auditor's independence as; Natural Log of the audit fees paid by the client, which refers to the quality of being free from influence, persuasion, or bias. Their absence would greatly impair the value of audit services and audit reports refers to the quality of being free from influence, persuasion, or bias. Their absence would greatly impair the value of audit services and audit reports.
4) Auditor Tenure (AUDTEN); the duration of the auditor-client relationship. A long association between an auditor and his client may pose a threat to independence as personality and familiarity may develop between the parties, which may lead to less cautiousness on the auditor's part. In this study we measured audit tenure (AUDTEN) as; Length of the auditor-client relationship: ‘1’ if 1-3 years, ‘2’ if over than 3 years, and ‘0’ if otherwise.
5) Qualified Audit Opinion (AUDQO); pointing to the quality of financial information is the qualification of the auditor's opinion. Unclean audit reports are more likely to

misunderstand the content defined in the company's financial statement and misinterpret the company's performance and value. Types of audit opinion are estimated as; '0' if unqualified opinion, '1' if unqualified opinion with other matters, and '2' for Qualified opinion.

Thus, the study tests whether audit quality can affect the trading suspension propensity. All of the independent variables' formulations follow the prior study as mentioned in the first place.

4.2.3 Moderator Variables

In order to examine the potential differential impact of audit quality on trading suspension propensity during the COVID-19 period compared to the pre-pandemic period, the study draws inspiration from the work of Sabrina Gong, Nam Ho, Justin Yiqiang Jin, and Kiridaran Kanagaretnam (2022). To assess the resilience of audit quality, the researchers introduce the variable "COVID-19" as an interaction term with each aspect of the audit. However, it should be noted that "COVID-19" is represented by a dummy variable, where the value is equal to 1 during the period from 2020 to 2022, and 0 otherwise.

4.2.4 Control Variables

This study examines various control variables that can drive firms to trigger a Trading suspension, including board characteristics. The control variables considered are Market to Book Value (MBV) of equity, Return on Assets (ROA), Earnings Per Share (EPS), Operating Cash Flow (OCF), Leverage (LEV), Company Size (Coysize), and Discretionary Accruals (DA). The company's market-to-book value is an indicator of growth opportunities and can impact earnings and stock value (Zhou & Elder, 2001). Return on Assets (ROA) is a financial ratio used to measure a company's profitability compared to its total assets, which can help management, analysts, and investors evaluate how effectively a company is utilizing its assets to generate profits. Earnings per share (EPS) measures a company's profitability and indicates how much money the company makes for each share, making it a widely used metric for estimating business value. Companies with high operating cash flow (OCF) are expected to have lower revenue

irregular accruals to smooth earnings, making OCF a performance measure (Dechow et al., 1996; Krishnan & Yang, 1999). OCF is included in the control variables to account for potential misspecifications in the model (Vander Bauwhede & Willekens, 2000) and is expected to have a negative coefficient. Leverage (LEV) is also considered to control for the potential effects of earnings and market value of equity instruments, as high leverage can incentivize earnings management and manipulation leading to Trading suspension simulation. The control variable for Company Size (Coysize) suggests that larger, more politically oriented firms prefer accounting alternatives that adjust the revenue (Vander Bauwhede & Willekens, 2000), and the estimated client firm size by total assets is included to control this effect with a suggestion of a negative coefficient. Additionally, Discretionary Accruals (DA) are included in the model to control the possibility that firms with larger absolute total accruals may have greater inherent earnings management potential.

These variables are implications to influence the possibility to provoke a Trading suspension. The description of variables is shown in Appendix, Table 3.

4.3 Methodology

The study employs regression models to investigate the relationship between independent variables and dependent variables for publicly traded companies. Given that the dependent variable, Trading suspension propensity, is ordinal in nature, the study utilizes the Ordered Probit regression technique to examine the association between Trading suspension propensity and the independent variables. The Probit regression model below is simultaneously employed to test the six hypotheses proposed in this study. The sample consists of firm-year observations divided into two periods spanning three years each: Pre-Covid (2016-2018) and Covid (2020-2022) with Pooled Cross-Sectional data regression analysis. The research models presented in this study are developed based on the formulated hypotheses.

4.3.1 Model Specification

The analysis of the polychotomous response data in this study employed the ordered Probit model due to the ordinal categorical nature of the dependent variables of main interest, which

determine Trading suspension propensity. When considering the ordinal Probit model[2], the following notation is used:

$$y^*_i = \beta x'_i + \varepsilon_i$$

Where; y^*_i is the underlying latent variable that indexes the probability that the stock triggered with Trading suspension, x'_i is a vector of parameters to be estimated, β is a vector of the unknown parameter estimated by using the maximum likelihood estimation (MLE) method, which seeks to maximize the likelihood function of observing the given set of data. The estimated coefficients provide information about the direction and magnitude of the effects of the independent variables on the probabilities of different categories of the dependent variable, subscript i denotes an individual observation, and ε_i is the stochastic error term with the standard normal distribution, $\varepsilon_i \sim$ N ($0, \sigma^2$). The explanatory variables in the model meet the condition of exogeneity, which means that $E[x'_i \varepsilon_i] = 0$. The latent variable in this model is represented by ordinal categories that can be coded as 0, 1, 2, 3, and so on up to k. The observed response for the k-th category occurs when the underlying continuous response falls within the k-th interval and can be expressed as:

We observe categorical variables y^*_i such that

$$y_i = \begin{cases} 0, & if\ y^*_i \le c_1 \\ 1, & if\ c_1 < y^*_i \le c_2 \\ k, & if\ c_{k-1} < y^*_i \end{cases}$$

The unknown cut-offs satisfy the condition that $c_1 < c_2 < \cdot < c_{k-1} < c_k$. We define $c_0 = -\infty$ and $c_k = \infty$ in order to avoid handling the boundary cases separately.

The probability that $y_i = k$ is

$$\begin{aligned} Pr(y_i = k|x_i) &= Pr\left(c_{k-1} < y^*_i \le c_k\right) \\ &= Pr\left(y^*_i \le c_k\right) - Pr\left(y^*_i \le c_{k-1}\right) \\ &= \Phi(c_k - \beta x'_i) - \Phi(c_{k-1} - \beta x'_i) \end{aligned}$$

[2] Ordered Logit and Probit Models https://mparavee.files.wordpress.com/2018/11/ordered-logit-and-ordered-probit-models.pdf.

Where:

$Pr(y_i = k|x_i)$ represents the cumulative probability that the dependent variable Y takes on a value equal to category k, given the values of the independent variables x. $\Phi(.)$ is the cumulative distribution function of the standard normal distribution.

Interpretation of the Ordered Probit coefficient vector β

$$E[y^*_i|x_i] = E[\beta x'_i + \varepsilon_i|x_i] = E[\beta x'_i] \quad \text{since} \quad E[\varepsilon_i|x_i] = 0$$

Where:

$E[y^*_i|x_i]$ represents the conditional mean value of the latent random variable y^*_i for given values of the regressors.

The slope coefficients β_j: If all explanatory variables are continuous and enter the index function linearly, the partial derivatives of $E[y^*_i|x_i]$ with respect to the individual regressors are the slope coefficients β_j

$$\partial E[y^*_i|x_i]/\partial x_i = \beta_j$$

Marginal Effects in the Ordered Probit Models

The marginal effect measures the change in the probability of observing a particular category of the dependent variable due to a one-unit change in an independent variable while holding all other variables constant. It quantifies the impact of the independent variable on the outcome.

The marginal effect of an increase in a regressor x_{ij} on the probability of selecting alternative k is:

$$\partial Pr(y_i = k|x)/\partial x_i = \{\Phi'(c_k - \beta x'_i) - \Phi'(c_{k-1} - \beta x'_i)\}\beta_j$$

4.3.2 Data-generating Process

We generate $AUDFS_{i,t}, AUDSW_{i,t}, AUDFE_{i,t}, AUDTEN_{i,t}, AUDQO_{i,t}$ and $Control_{i,t}$ as independent standard normal random variables. Shocks $\varepsilon_{i,t}$ has a correlation ρ (we will try different assumptions about the distribution functions). The latent variables $y^*_{i,t}$ are

Direct evidence – Actual cases

$$y^*_{i,t} = \alpha_0 + \beta_1 AUDFS_{i,t} + \beta_2 AUDSW_{i,t} + \beta_3 AUDFE_{i,t} + \beta_4 AUDTEN_{i,t} + \beta_5 AUDQO_{i,t} + \sum_{k=1}^{n} \gamma_i \, Control_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$y^*_{i,t} = \alpha_0 + \beta_1 AUDFS_{i,t} + \beta_2 AUDSW_{i,t} + \beta_3 AUDFE_{i,t} + \beta_4 AUDTEN_{i,t} + \beta_5 AUDQO_{i,t} + \beta_6 AUDFS * Covid_{i,t} + \beta_7 AUDSW * Covid_{i,t} + \beta_8 AUDFE * Covid_{i,t} + \beta_9 AUDTEN * Covid_{i,t} + \beta_5 AUDQO_{i,t} + \sum_{k=1}^{n} \gamma_i \, Control_{i,t} + \varepsilon_{i,t} \quad (2)$$

Indirect evidence – Suspected cases

$$y^*_{i,t} = \alpha_0 + \beta_1 AUDFS_{i,t} + \beta_2 AUDSW_{i,t} + \beta_3 AUDFE_{i,t} + \beta_4 AUDTEN_{i,t} + \beta_5 AUDQO_{i,t} + \sum_{k=1}^{n} \gamma_i \, Control_{i,t} + \varepsilon_{i,t} \quad (3)$$

$$y^*_{i,t} = \alpha_0 + \beta_1 AUDFS_{i,t} + \beta_2 AUDSW_{i,t} + \beta_3 AUDFE_{i,t} + \beta_4 AUDTEN_{i,t} + \beta_5 AUDQO_{i,t} + \beta_6 AUDFS * Covid_{i,t} + \beta_7 AUDSW * Covid_{i,t} + \beta_8 AUDFE * Covid_{i,t} + \beta_9 AUDTEN * Covid_{i,t} + \beta_5 AUDQO_{i,t} + \sum_{k=1}^{n} \gamma_i \, Control_{i,t} + \varepsilon_{i,t} \quad (4)$$

The observed dependent variable $y^*_{i,t}$ is defined as:

$$y_i = \begin{cases} 0, & if\ y^*_{i,t} \le 0 \\ 1, & if\ 0 < y^*_{i,t} \le 1 \\ 2, & if\ 1 < y^*_{i,t} \end{cases}$$

Where:

$y^*_{i,t}$ = Trading suspension propensity; ‘1’ if 1 time triggered, ‘2’ if 2 times or more triggered, either and ‘0’ otherwise.

$AUDFS_{i,t}$ = Big-4 and Non-Big4 audit firms; ‘1’ if Big-4 and ‘0’ if otherwise.

$AUDSW_{i,t}$ = Frequency to switch auditor; ‘1’ if switch the auditor, either and ‘0’ if otherwise.

$AUDFE_{i,t}$ = Audit Fees that are used as; Natural Log of the audit fees paid by the client.

$AUDTEN_{i,t}$ = Length of auditor-client relationship; '1' if 1-3 years, '2' if over than 3 years and '0' if otherwise.

$AUDQO_{i,t}$ = Types of audit opinion estimated as; '0' if unqualified opinion, '1' if unqualified
opinion with other matters and '2' if Qualified opinion.

$Covid_{i,t}$ = Interaction terms moderated by COVID-19 pandemic period as; '1' if data derived in Covid periods from 2020-2022, '0' if otherwise.

$Control_{i,t}$ = Control variables examined in this study include Market to Book Value (MBV) of equity, Return on Assets (ROA), Earnings Per Share (EPS), Operating Cash Flow (OCF), Leverage (LEV), Company Size (Coysize) and Discretionary Accruals (DA).

α_0 = Independent coefficient

β_n = Dependent coefficient for each dependent variable

$\varepsilon_{i,t}$ = Error term

According to the observations, we investigated the correlation of each determinant of audit quality, Audit Firm Size, Audit Switch, Audit Fees, Audit Tenure, and Qualified Audit Opinion, on Trading suspension propensity for listed companies in SET50 and MAI during 2016 – 2018 (Pre-covid) and 2020 – 2022 (Covid) periods in the model to see which audit measurement can affect or mitigate Trading suspension propensity which was applied to Hypothesis identified earlier. We integrated all examined dependent variables along with Control variables into the Model. In addition, we replicated the test with Actual trading suspension cases reinforced by the SEC during observation periods and Suspected trading suspension cases derived from the Identification model amended from prior research to see if there are similarities in the result from those sources.

CHAPTER 5: RESULTS

5.1 Descriptive Statistics

The descriptive statistics encompass a comprehensive summary of all variables, including both dependent and independent variables, employed in the empirical analysis. These statistics cover a span of six time periods, specifically from 2016 to 2018 and 2020 to 2022. Within this paper, Table 5 presents the descriptive statistics for the key variables under investigation, including the main explanatory variables, main explained variables, and control variables. The table includes information such as the sample size, mean, standard deviation, minimum and maximum values, variance, skewness, kurtosis, first quartile, second quartile (median), and third quartile. Panel A and Panel B present the summary statistics of the sample during two distinct observation periods: the Pre-Covid period from 2016 to 2018 and the Covid period from 2020 to 2022, respectively.

Table 5: Descriptive statistics

Summary statistics

	N	mean	SD	min	max	variance	skewness	kurtosis	p25	p50	p75
SP Actual	514	.309	0.618	0	2	.382	1.821	4.981	0	0	0
SP Suspect	514	1.14	0.807	0	2	.651	-.259	1.584	0	1	2
AUDFS	514	.521	0.500	0	1	.25	-.086	1.007	0	1	1
AUDSW	514	.545	0.498	0	1	.248	-.18	1.032	0	1	1
AUDTEN	514	1.422	0.557	0	2	.311	-.265	2.104	1	1	2
AUDFE	390	6.363	0.370	5.724	8.269	.137	2.151	9.793	6.119	6.295	6.477
AUDQO	514	.444	0.590	0	2	.349	.958	2.916	0	0	1
MBV	453	36.979	51.156	-54.85	624.032	2616.952	5.464	48.501	13.284	21.235	40.039
ROA	453	.035	0.105	-.596	.336	.011	-2.03	12.606	.007	.041	.081
EPS	453	36.729	683.017	-2.225	14524.24	466512.85	21.138	448.818	.02	.132	.6
OCF	453	4.389	21.936	-16.193	284.405	481.168	8.827	98.025	.004	.062	.173
LEV	453	.474	0.301	.075	4.942	.091	7.35	107.856	.295	.464	.608
Coysize	453	6.396	0.951	4.74	9.575	.905	1.604	4.84	5.826	6.064	6.494
DA	438	.187	0.169	.002	1.409	.028	2.745	15.498	.077	.14	.24
AUDFS*Covid	514	.28	0.450	0	1	.202	.979	1.959	0	0	1
AUDSW*Covid	514	.307	0.462	0	1	.213	.835	1.697	0	0	1
AUDTEN*Covid	514	.809	0.893	0	2	.798	.382	1.364	0	0	2
AUDFE*Covid	390	3.588	3.187	0	8.269	10.155	-.224	1.088	0	6.049	6.339
AUDQO*Covid	514	.272	0.507	0	2	.257	1.675	4.925	0	0	0

Note: In Table 5 provides descriptive statistics for explained variables, explanatory variables, and control variables. It is worth pointing out that the majority of companies disclosed audit fees and financial information in only recent years. Thus, the sample size of audit fees (AUDFE) and control variables is only 390/514 and 453/514, respectively.

Focus on dependent variables with 514 observations, suspected cases have a higher mean of trading suspension propensity than actual cases, its mean is at 1.14, whereby the actual cases have a mean only of 0.309. Mean difference test results are shown in Figure 4. In comparison, suspected cases significantly have a probability of trading suspension than actual cases. These results potentially point out that the trading suspension cases investigated and disclosed by regulators accounted for only a small part of all cases. There is a lot of propensity for trading suspension cases in the market that have escaped the punishment of the regulator (Comerton Forde & Putniņš, 2014; Neupane et al, 2017).

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
SP_Actual	514	0.3093385	0.027251	0.6178236	0.2558012	0.3628759
SP_Suspect	514	1.140078	0.0355858	0.806787	1.070166	1.20999
diff	514	-0.8307393	0.0383733	0.8699828	-0.9061274	-0.7553512

mean(diff) = mean(SP_Actual - SP_SuspectRRm) t = -21.6489

Ho: mean(diff) = 0 degrees of freedom = 513

Ha: mean(diff) < 0 Ha: mean(diff) != 0 Ha: mean(diff) > 0

Pr(T < t) = 0.0000*** Pr(|T| > |t|) = 0.0000*** Pr(T > t) = 1.0000

Figure 4: Mean Difference Test – Actual and Suspected Cases

Different periods, Pre-Covid with 262 observations and Covid with 252 observations are shown separately. Post-covid has a higher means of trading suspension propensity on suspected cases, audit firm size, audit switch, audit fees, audit opinion, return on assets, and company sizes. While the Pre-covid period has a higher means of trading suspension propensity on actual cases, market-to-book values, earnings per share, net operating cash flow, and discretionary accruals.

According to Table 6, it could result from the fact that there may be some indicators among variables taken into account between different periods.

Table 6: Descriptive statistics by Covid period

Table 6.1: Descriptive statistics – Pre-Covid period

Panel A: Pre Covid

	N	mean	SD	min	max	variance	skewness	kurtosis	p25	p50	p75
SP Actual	262	.344	0.652	0	2	.426	1.672	4.365	0	0	0
SP Suspect	262	.927	0.843	0	2	.711	.138	1.425	0	1	2
AUDFS	262	.473	0.500	0	1	.25	.107	1.011	0	0	1
AUDSW	262	.466	0.500	0	1	.25	.138	1.019	0	0	1
AUDTEN	262	1.202	0.533	0	2	.285	.145	2.928	1	1	2
AUDFE	171	6.329	0.374	5.724	8.142	.14	2.143	9.667	6.08	6.245	6.459
AUDQO	262	.336	0.555	0	2	.308	1.414	4.031	0	0	1
MBV	204	40.69	55.871	-54.85	624.032	3121.536	6.447	61.758	16.777	25.971	47.918
ROA	204	.031	0.118	-.596	.321	.014	-2.37	12.962	.007	.046	.081
EPS	204	78.586	1017.513	-2.225	14524.24	1035332.7	14.131	201.107	.022	.169	.85
OCF	204	4.404	22.970	-6.758	284.405	527.629	9.568	111.218	-.013	.058	.164
LEV	204	.474	0.226	.075	1.513	.051	.64	4.097	.292	.462	.637
Coysize	204	6.373	0.960	5.009	9.469	.922	1.566	4.722	5.817	6.06	6.48
DA	189	.193	0.160	.002	1.153	.026	2.09	10.122	.085	.153	.265
AUDFS*Covid	262	0	0.000	0	0	0	.	.	0	0	0
AUDSW*Covid	262	0	0.000	0	0	0	.	.	0	0	0
AUDTEN*Covid	262	0	0.000	0	0	0	.	.	0	0	0
AUDFE*Covid	171	0	0.000	0	0	0	.	.	0	0	0
AUDQO*Covid	262	0	0.000	0	0	0	.	.	0	0	0

Table 6.2: Descriptive statistics – Covid period

Panel B: Covid

	N	mean	SD	min	max	variance	skewness	kurtosis	p25	p50	p75
SP Actual	252	.274	0.579	0	2	.335	1.991	5.764	0	0	0
SP Suspect	252	1.361	0.703	0	2	.495	-.635	2.216	1	1	2
AUDFS	252	.571	0.496	0	1	.246	-.289	1.083	0	1	1
AUDSW	252	.627	0.485	0	1	.235	-.525	1.276	0	1	1
AUDTEN	252	1.651	0.486	0	2	.236	-.737	1.815	1	2	2
AUDFE	219	6.39	0.365	5.785	8.269	.134	2.209	10.091	6.172	6.308	6.488
AUDQO	252	.556	0.606	0	2	.367	.593	2.42	0	0	1
MBV	249	33.938	46.839	-5.682	362.016	2193.868	3.95	21.87	11.726	18.282	36.122
ROA	249	.038	0.092	-.427	.336	.009	-1.273	9.131	.008	.039	.081
EPS	249	2.435	12.859	-1.24	147.33	165.365	8.89	88.886	.017	.12	.523
OCF	249	4.377	21.097	-16.193	249.456	445.078	7.996	81.352	.01	.064	.178
LEV	249	.474	0.352	.093	4.942	.124	8.29	105.48	.295	.465	.598
Coysize	249	6.415	0.945	4.74	9.575	.893	1.641	4.945	5.834	6.075	6.51
DA	249	.183	0.175	.014	1.409	.031	3.135	18.407	.075	.134	.226
AUDFS*Covid	252	.571	0.496	0	1	.246	-.289	1.083	0	1	1
AUDSW*Covid	252	.627	0.485	0	1	.235	-.525	1.276	0	1	1
AUDTEN*Covid	252	1.651	0.486	0	2	.236	-.737	1.815	1	2	2
AUDFE*Covid	219	6.39	0.365	5.785	8.269	.134	2.209	10.091	6.172	6.308	6.488
AUDQO*Covid	252	.556	0.606	0	2	.367	.593	2.42	0	0	1

5.2 Correlation Analysis

Table 7 presents the correlation analysis results, illustrating the relationships among all variables considered in the analysis. It is important to note that slight differences exist between the tables, as they are segregated into actual cases and suspected cases for a simple examination of the associations. As a result, three distinct tables are presented to highlight these varying relationships.

Seeing the correlation of dependent variables in Table 7, the results show that actual suspension propensity (SP_Actual) has a significant positive correlation with suspected suspension propensity (SP_Suspect) by 0.6766 ($p<0.01$).

When looking in more detail between explained variables and explanatory variables as shown in Tables 6.1 and 6.2.

For direct evidence in Table 7.1, the actual case (SP_Actual) positively correlates with audit switch (AUDSW) ($p<0.01$), Moreover, it positively associates with audit opinion (AUDQO) ($p<0.01$) while has a negative connection with audit tenure (AUDTEN) ($p<0.01$).

Whereas indirect evidence in Table 7.2, the suspected case (SP_Suspect) has a significant positive correlation with audit switch (AUDSW) ($p<0.01$) and audit opinion (AUDQO) ($p<0.01$) as same as the actual cases but it turns negatively correlated with audit fees (AUDFE) ($p<0.1$).

Correspondingly, from both direct and indirect evidence, the result consentaneous shows that the correlation of trading suspension propensity (SP) is positive with audit switch (AUDSW) and audit opinion (AUDQO) but there is no significant relationship on audit firm size (AUDFS). In addition, there are some similarities of negative correlation between trading suspension propensity (SP), audit tenure (AUDTEN), and audit fees (AUDFE).

Table 7: Correlations – Direct and indirect evidence

Pairwise correlations

Variables	(1)	(2)
(1) SP_Actual	1.000	
(2) SP_Suspect	0.6766***	1.000

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

Table 7.1: Correlations – Direct evidence

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) SP_Actual	1.000																	
(2) AUDFS	-0.037	1.000																
(3) AUDSW	0.186***	0.172***	1.000															
(4) AUDTEN	-0.120***	-0.085*	-0.268***	1.000														
(5) AUDFE	-0.019	0.333***	0.019	0.007	1.000													
(6) AUDQO	0.307***	0.027	0.171***	-0.055	0.123**	1.000												
(7) MBV	0.040	0.043	-0.094**	-0.069	-0.031	0.071	1.000											
(8) ROA	-0.384***	0.157***	-0.164***	0.095**	-0.011	-0.292***	0.077*	1.000										
(9) EPS	-0.029	-0.050	-0.067	-0.038	-0.046	-0.041	0.029	-0.011	1.000									
(10) OCF	-0.101**	0.088*	0.077*	-0.025	0.595***	0.042	-0.059	0.022	-0.007	1.000								
(11) LEV	0.161***	0.015	0.055	-0.060	0.305***	0.191***	0.022	-0.411***	0.012	0.083*	1.000							
(12) Coysize	-0.079*	0.342***	0.101**	0.024	0.748***	0.046	-0.095**	0.049	-0.055	0.537***	0.250***	1.000						
(13) DA	0.080*	-0.019	-0.102**	-0.044	-0.199***	0.051	0.322***	0.104**	0.133***	-0.112**	-0.122**	-0.319***	1.000					
(14) AUDFS*Covid	-0.109**	0.598***	0.144***	0.196***	0.283***	0.104**	0.001	0.096**	-0.033	0.099**	0.020	0.248***	-0.021	1.000				
(15) AUDSW*Covid	0.001	0.107**	0.609***	0.101**	0.081	0.171***	-0.088*	-0.071	-0.039	0.050	0.063	0.060	-0.101**	0.476***	1.000			
(16) AUDTEN*Covid	-0.073*	0.057	0.050	0.604***	0.031	0.138***	-0.061	0.071	-0.050	-0.021	-0.043	0.008	-0.022	0.551***	0.520***	1.000		
(17) AUDFE*Covid	-0.110**	0.034	0.014	0.491***	0.146***	0.110**	-0.049	0.027	-0.063	0.028	0.010	0.069	-0.042	0.635***	0.655***	0.906***	1.000	
(18) AUDQO*Covid	0.129***	0.038	0.137***	0.158***	0.113**	0.703***	0.040	-0.155***	-0.031	0.022	0.152***	0.046	-0.028	0.332***	0.424***	0.468***	0.550***	1.000

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

Table 7.2: Correlations – Indirect evidence

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) SP_Suspect	1.000																	
(2) AUDFS	0.031	1.000																
(3) AUDSW	0.362***	0.172***	1.000															
(4) AUDTEN	-0.032	-0.085*	-0.268***	1.000														
(5) AUDFE	-0.092*	0.333***	0.019	0.007	1.000													
(6) AUDQO	0.176***	0.027	0.171***	-0.055	0.123**	1.000												
(7) MBV	-0.110**	0.043	-0.094**	-0.069	-0.031	0.071	1.000											
(8) ROA	-0.231***	0.157***	-0.164***	0.095**	-0.011	-0.292***	0.077*	1.000										
(9) EPS	-0.024	-0.050	-0.067	-0.038	-0.046	-0.041	0.029	-0.011	1.000									
(10) OCF	-0.051	0.088*	0.077*	-0.025	0.595***	0.042	-0.059	0.022	-0.007	1.000								
(11) LEV	-0.042	0.015	0.055	-0.060	0.305***	0.191***	0.022	-0.411***	0.012	0.083*	1.000							
(12) Coysize	-0.145***	0.342***	0.101**	0.024	0.748***	0.046	-0.095**	0.049	-0.055	0.537***	0.250***	1.000						
(13) DA	-0.036	-0.019	-0.102**	-0.044	0.199***	0.051	0.322***	0.104**	0.133***	-0.112**	-0.122**	0.319***	1.000					
(14) AUDFS*Covid	0.139***	0.598***	0.144***	0.196***	0.283***	0.104**	0.001	0.096**	-0.033	0.099**	0.020	0.248***	-0.021	1.000				
(15) AUDSW*Covid	0.287***	0.107**	0.609***	0.101**	0.081	0.171***	-0.088*	-0.071	-0.039	0.050	0.063	0.060	-0.101**	0.476***	1.000			
(16) AUDTEN*Covid	0.237***	0.057	0.050	0.604***	0.031	0.138***	-0.061	0.071	-0.050	-0.021	-0.043	0.008	-0.022	0.551***	0.520***	1.000		
(17) AUDFE*Covid	0.141***	0.034	0.014	0.491***	0.146***	0.110**	-0.049	0.027	-0.063	0.028	0.010	0.069	-0.042	0.635***	0.655***	0.906***	1.000	
(18) AUDQO*Covid	0.154***	0.038	0.137***	0.158***	0.113**	0.703***	0.040	-0.155***	-0.031	0.022	0.152***	0.046	-0.028	0.332***	0.424***	0.468***	0.550***	1.000

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

Additionally, in order to examine the presence of multicollinearity, the variance inflation factors (VIFs) were computed for each of the explanatory variables, with a focus on their interrelationships. The results, as presented in Table 8, indicate that the VIFs for the explanatory variables range from 1.0 to 4.0. These values suggest that multicollinearity is not expected to significantly influence the outcomes of our analysis.

Table 8: Variance inflation factor (VIFs)

Variance inflation factor

	VIF	1/VIF
Coysize	3.017	.331
AUDFE	2.849	.351
OCF	1.735	.576
LEV	1.586	.63
ROA	1.464	.683
DA	1.321	.757
AUDFS	1.262	.792
AUDSW	1.237	.808
MBV	1.178	.849
AUDTEN	1.174	.851
AUDQO	1.17	.855
EPS	1.041	.96
Mean VIF	1.586	.

The Variance Inflation Factor (VIF)[3] is calculated for each explanatory variable included in the model. The VIF value starts at 1 and does not have an upper limit. Interpreting the VIF values can be done according to the following guidelines:

i. A VIF value of 1 suggests no correlation between the specific explanatory variable and any other explanatory variables within the model.
ii. A VIF value between 1 and 5 indicates a moderate correlation between the specific explanatory variable and other variables in the model, which usually does not require immediate attention.
iii. A VIF value greater than 5 suggests a potentially severe correlation between the specific explanatory variable and other variables in the model. In such cases, it is likely that the coefficient estimates and p-values in the regression output are unreliable and should be treated with caution.

[3] https://www.statology.org/multicollinearity-stata/

5.3 Empirical Results

This paper will examine whether audit quality has an impact on trading suspension propensity across various aspects, as outlined in Tables 9,10 and 11.

Direct evidence – Actual cases:

According to Model 1, audit firm size (AUDFS) negatively affects the suspension propensity in an aspect of actual cases announced by the SEC. The coefficient is -0.3019 at a 5% significant level ($p<0.05$). This finding supports the H1 hypothesis because the bigger audit firms, Big-4, tend to have access to financial resources, research facilities, superior technology, and skilled employees who can accurately detect problems related to misstatements. Conversely, audit fees (AUDFE) and audit opinions (AUDQO) positively affect the suspension propensity in the aspect of actual cases announced by SEC with a coefficient of 0.9032 and 0.4954, respectively, at a 1% significant level ($p<0.01$), which support H3 and H5, respectively, in case that the lack of independence can be a major vulnerability that leads to creating opportunities for those with more information to exploit unfair stock trading, potentially triggering a suspension. Unclean audit reports are also more likely to misunderstand the content defined in the company's financial statement and misinterpret the company's performance and its value, perhaps leading informed users, or internal management to take advantage of the unusual trading transaction. However, the results of Model 1 reveal a negative impact of audit tenure (AUDTEN) on actual suspend propensity with a coefficient of -0.3367 at a 5% significant level ($p<0.05$) which reject hypothesis H4. Also, there are insignificant changes of impact between audit switch (AUDSW) and actual suspend cases which reject hypothesis H2. Hence, it is not necessary that the development of personal relationships and familiarity between the parties' results in less caution on the auditor's part and a more obliging attitude towards senior management of the company.

Based on the average marginal effect presented in Table 10, the following observations can be made:

i. When the client uses a Big-4 audit firm, the probability of trading suspension decreases by 3.69% and 3.25% for one-time and two or more times triggered suspensions, respectively. Conversely, it increases by 6.94% for cases that do not trigger suspension.

ii. Longer auditor-client relationships decrease the probability of one-time and two or more times-triggered suspensions by 4.11% and 3.62%, respectively, while increasing the probability of not triggering suspension by 7.74%.

iii. Higher audit fees increase the probability of one-time and two or more times-triggered suspensions by 11.0% and 9.71%, respectively, and decrease the probability of not triggering suspension by 20.8%.

iv. Reporting unclear audit opinions increases the probability of one-time and two or more times-triggered suspensions by 6.05% and 5.33%, respectively, while decreasing the probability of not triggering suspension by 11.4%.

In the next step, the study incorporates the impact of the Covid-19 pandemic. Model 2 explores the interaction between audit quality and Covid-19, revealing that audit fees and audit opinions have significantly positive impacts on trading suspension cases at actual levels, with coefficients of 0.9201 and 0.6823, respectively, at 5% and 1% significant levels. This result aligns with Model 1 at a 1% significant level ($p<0.01$). Additionally, the audit switch plays a significant positive role in suspension propensity, with a coefficient of 0.5325. On the other hand, the interaction term between audit firm size and the Covid variable (AUDFS*Covid) has a significant negative effect on suspension propensity in actual cases ($p<0.05$), with a coefficient of -0.6969. This finding supports Model 1, suggesting that audit firm size has an even more negative effect on suspension propensity during the Covid-19 pandemic compared to previous pandemics, supporting hypothesis H6. However, there are no significant impacts of other audit aspects on overall suspension propensity during the pandemic period. Therefore, the Covid-19 pandemic does not significantly alter the relationship between audit quality and suspension propensity, rejecting hypothesis H6 overall.

Analyzing the average marginal effect in relation to Model 2:

i. Switching auditors increases the probability of one-time and two or more times-triggered suspensions by 6.33% and 5.45%, respectively, while decreasing the probability of not triggering suspension by 11.8%.

ii. Higher audit fees increase the probability of one-time and two or more times-triggered suspensions by 10.9% and 9.41%, respectively, while decreasing the probability of not triggering suspension by 20.4%.

iii. Reporting unclear audit opinions increases the probability of one-time and two or more times-triggered suspensions by 8.12% and 6.98%, respectively, while decreasing the probability of not triggering suspension by 15.1%.

Indirect evidence – Suspected cases:

Repeating all steps using Models 3 and 4, the independent variables are replaced with indirect evidence based on trading suspension propensity in suspected cases derived from the identification model (SP_Suspect).

Model 3 indicates that audit switch (AUDSW) has a significant positive effect on suspected trading suspension cases, with a coefficient of 0.5442 at a 1% significant level ($p<0.01$), consistent with Model 2. This implies that an audit switch increases the probability of trading suspension in both direct and indirect causes, supporting hypothesis H2. Additionally, audit tenure (AUDTEN) shows a positive and significant relationship with suspected cases, with a coefficient of 0.2675, which can support hypothesis H4. This contradicts the results of Models 1 and 2, which indicated a negative impact on actual suspension cases. It suggests that unobservable cases that regulators are not aware of have a lower probability of auditors expressing their professional opinion on financial information, which may contribute to a higher propensity for trading suspension. On the other hand, audit firm size (AUDFS), audit fees (AUDFE), and audit opinion (AUDQO) do not have significant impacts on suspected cases, despite their significant roles in actual cases as shown in Models 1 and 2.

Examining the average marginal effect for Model 3:

i. Switching auditors increases the probability of two or more times triggered suspensions by 19.4%, while decreasing the probability of not triggering suspension by 12.2% and the probability of one-time triggered suspension by 7.22%.

ii. Longer auditor-client relationships increase the probability of two or more times triggered suspensions by 9.53%, while decreasing the probability of not triggering suspension by 5.99% and the probability of one-time triggered suspension by 3.55%.

Lastly, considering the moderating roles driving audit quality, this study focuses on the Covid-19 pandemic moderated on the impact of audit quality and suspected cases, Model 4. The results are consistent with Models 2 and 3 for the audit switch aspect (AUDSW), showing a positive coefficient of 0.4955 at a 5% significant level ($p<0.05$), supporting hypothesis H2. Similarly, audit firm size (AUDFS) aligns with Model 1, displaying a negative coefficient of -0.2637 at a 10% significant level ($p<0.1$), supporting H1. However, the interaction term (AUDFS*Covid) has a significantly negative impact on suspected trading suspension cases, with a coefficient of -0.3414. This suggests that audit firm size has an even more negative effect during the Covid-19 pandemic compared to non-pandemic periods. There are no significant indicators for audit fees (AUDFE), audit tenure (AUDTEN), audit opinion (AUDQO), and their Covid-19 interaction terms, rejecting hypotheses H3, H4, H5, and H6, respectively.

Summarizing the average marginal effect for Model 4:

i. Using Big-4 auditors decreases the probability of two or more times triggered suspensions by 9.32%, while increasing the probability of not triggering suspension by 5.84% and the probability of one-time triggered suspension by 3.48%.

ii. Switching auditors increases the probability of two or more times triggered suspensions by 17.5%, while decreasing the probability of not triggering suspension by 11.0% and the probability of one-time triggered suspension by 6.54%.

Regarding the control variables, return on assets (ROA) is negatively and significantly associated with trading suspension propensity in both direct and indirect cases as expected and consistent with prior research. Similarly, earnings per share (EPS) and net operating cash flow (OCF) have a significant negative impact on direct evidence, while discretionary accruals increase the chances of triggering trading suspension for direct evidence. Meanwhile, large firms due to more scrutiny from financial analysts and investors are less likely to engage in trading suspension on indirect evidence. On the other hand, the coefficient of Market-to Book value (MBV) and leverages (LEV) do not have statistically significant coefficients, indicating any significant effect on the probability of trading suspension.

It is important to note that the inconsistent results between direct and indirect evidence may be attributed to the fact that suspected cases derived from the identification model may not fully reflect the probability of trading suspension cases. The criteria for abnormal return and price reversal may not entirely capture a company's level of concern regarding stock trading, such as insider trading or market manipulation, due to the potential lack of accuracy in publicly available information. Thus, these inconsistencies contribute to deviations in certain aspects of the findings.

Table 9: Ordered Probit Regression Results

(1) Direct evidence *(2) Direct evidence with moderating roles of Covid-19*
(3) Indirect evidence *(4) Indirect evidence with moderating roles of Covid-19*

	Direct (SP_Actual)		Indirect (SP_Suspect)	
VARIABLES	(1)	(2)	(3)	(4)
AUDFS	-0.3019**	0.1014	-0.0724	-0.2637*
	(0.175)	(0.257)	(0.136)	(0.198)
AUDSW	0.1692	0.5325**	0.5442***	0.4955**
	(0.192)	(0.319)	(0.140)	(0.222)
AUDTEN	-0.3367**	-0.1619	0.2675**	0.1695
	(0.161)	(0.323)	(0.123)	(0.244)
AUDFE	0.9032***	0.9201**	0.1757	0.1334
	(0.386)	(0.403)	(0.269)	(0.280)
AUDQO	0.4954***	0.6823***	0.1142	0.2082
	(0.131)	(0.200)	(0.107)	(0.163)
MBV	-0.0009	-0.0008	-0.0016*	-0.0016*
	(0.002)	(0.002)	(0.001)	(0.001)
ROA	-3.1495***	-3.2340***	-2.7181***	-2.7790***
	(1.043)	(1.059)	(0.833)	(0.846)
EPS	-0.4710***	-0.4993***	-0.0000	-0.0000
	(0.175)	(0.178)	(0.000)	(0.000)
OCF	-0.0452**	-0.0477**	0.0016	0.0013
	(0.025)	(0.027)	(0.003)	(0.003)
LEV	-0.4352	-0.4387	0.0374	0.0120
	(0.462)	(0.474)	(0.378)	(0.380)
Coysize	0.0974	0.1235	-0.3188***	-0.3087***
	(0.180)	(0.182)	(0.111)	(0.112)
DA	1.1081***	1.1827**	-0.0088	-0.0362
	(0.561)	(0.573)	(0.437)	(0.444)
AUDFS*Covid		-0.6969**		-0.3414*
		(0.338)		(0.256)
AUDSW*Covid		-0.4715		0.0374
		(0.398)		(0.279)
AUDTEN*Covid		0.0278		0.0278
		(0.399)		(0.298)
AUDFE*Covid		0.0564		0.0006
		(0.123)		(0.088)
AUDQO*Covid		-0.1958		-0.1955
		(0.259)		(0.210)
Observations	376	376	376	376
Pseudo-R:	0.212	0.239	0.079	0.084
Log-Likelihood:	-203.042	-196.266	-354.694	-352.555
Chi-squared:	109.525	123.078	60.739	65.017
Prob Wald:	0.000	0.000	0.000	0.000

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

This study hypothesizes one-sided tests except the Covid-19 hypothesis, interaction terms between each audit aspect and Covid-19, which is a two-sided test. According to Model 1 through 4, variables such as audit aspects are one-sided tests. These variables are expected to be a positive sign except AUDFS that is expected to be a negative sign.

Table 10: Average Marginal Effects

	Direct (SP_Actual)						Indirect (SP_Suspect)					
	(1)			(2)			(3)			(4)		
VARIABLES	outcome(0)	outcome(1)	outcome(2)	outcome(0)	outcome(1)	outcome(2)	outcome(0)	outcome(1)	outcome(2)	outcome(0)	outcome(1)	outcome(2)
AUDFS	0.0694**	-0.0369**	-0.0325**	-0.0224	0.0121	0.0104	0.0162	0.00961	-0.0258	0.0584*	0.0348*	-0.0932*
	(0.0398)	(0.0214)	(0.0192)	(0.0568)	(0.0306)	(0.0263)	(0.0304)	(0.0181)	(0.0484)	(0.0439)	(0.0264)	(0.0698)
AUDSW	-0.0389	0.0207	0.0182	-0.118**	0.0633**	0.0545*	-0.122***	-0.0722***	0.194***	-0.110**	-0.0654**	0.175**
	(0.0440)	(0.0234)	(0.0208)	(0.0699)	(0.0378)	(0.0333)	(0.0314)	(0.0198)	(0.0475)	(0.0489)	(0.0306)	(0.0777)
AUDTEN	0.0774**	-0.0411**	-0.0362**	0.0358	-0.0193	-0.0166	-0.0599**	-0.0355**	0.0953**	-0.0376	-0.0224	0.0599
	(0.0365)	(0.0196)	(0.0179)	(0.0715)	(0.0385)	(0.0331)	(0.0275)	(0.0167)	(0.0432)	(0.0540)	(0.0323)	(0.0861)
AUDFE	-0.208***	0.110***	0.0971**	-0.204**	0.109**	0.0941**	-0.0393	-0.0233	0.0626	-0.0296	-0.0176	0.0472
	(0.0871)	(0.0469)	(0.0432)	(0.0877)	(0.0478)	(0.0426)	(0.0601)	(0.0357)	(0.0956)	(0.0621)	(0.0369)	(0.0989)
AUDQO	-0.114***	0.0605***	0.0533***	-0.151***	0.0812***	0.0698***	-0.0256	-0.0152	0.0407	-0.0461	-0.0275	0.0736
	(0.0285)	(0.0159)	(0.0152)	(0.0424)	(0.0241)	(0.0213)	(0.0240)	(0.0143)	(0.0381)	(0.0362)	(0.0217)	(0.0574)
MBV	0.000217	-0.000115	-0.000102	0.000187	-0.000100	-0.0000	0.000364*	0.000216*	-0.000579*	0.000355*	0.000212*	-0.000567*
	(0.000354)	(0.000188)	(0.000167)	(0.000353)	(0.000189)	(0.000165)	(0.000268)	(0.000161)	(0.000426)	(0.000269)	(0.000162)	(0.000427)
ROA	0.724***	-0.385***	-0.339***	0.715***	-0.385***	-0.331***	0.608***	0.361***	-0.969***	0.616***	0.367***	-0.983***
	(0.231)	(0.131)	(0.114)	(0.226)	(0.129)	(0.110)	(0.190)	(0.114)	(0.288)	(0.191)	(0.114)	(0.289)
EPS	0.108***	-0.0576***	-0.0507***	0.110***	-0.0594***	-0.0511***	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0395)	(0.0213)	(0.0200)	(0.0387)	(0.0212)	(0.0193)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
OCF	0.0104**	-0.00552**	-0.00486**	0.0105**	-0.00567**	-0.00488**	-0.000349	-0.000207	0.000556	-0.000295	-0.000176	0.000471
	(0.00563)	(0.00302)	(0.00273)	(0.00590)	(0.00319)	(0.00282)	(0.000714)	(0.000424)	(0.00114)	(0.000711)	(0.000424)	(0.00113)
LEV	0.1000	-0.0532	-0.0468	0.0970	-0.0522	-0.0449	-0.00836	-0.00496	0.0133	-0.00266	-0.00159	0.00425
	(0.106)	(0.0566)	(0.0499)	(0.104)	(0.0564)	(0.0487)	(0.0845)	(0.0502)	(0.135)	(0.0841)	(0.0501)	(0.134)
Coysize	-0.0224	0.0119	0.0105	-0.0273	0.0147	0.0126	0.0713***	0.0423***	-0.114***	0.0684***	0.0407***	-0.109***
	(0.0413)	(0.0220)	(0.0193)	(0.0402)	(0.0217)	(0.0187)	(0.0249)	(0.0154)	(0.0387)	(0.0249)	(0.0154)	(0.0389)
DA	-0.255**	0.135**	0.119**	-0.262**	0.141**	0.121**	0.00198	0.00117	-0.00315	0.00801	0.00477	-0.0128
	(0.128)	(0.0704)	(0.0606)	(0.126)	(0.0698)	(0.0590)	(0.0978)	(0.0580)	(0.156)	(0.0984)	(0.0587)	(0.157)
AUDFS*Covid				0.154**	-0.0829**	-0.0713**				0.0757*	-0.0451*	-0.121*
				(0.0741)	(0.0404)	(0.0355)				(0.0568)	(0.0341)	(0.0901)
AUDSW*Covid				0.104	-0.0561	-0.0482				-0.00828	-0.00493	0.0132
				(0.0875)	(0.0471)	(0.0411)				(0.0619)	(0.0368)	(0.0987)
AUDTEN*Covid				-0.00615	0.00330	0.00284				-0.00617	-0.00367	0.00984
				(0.0883)	(0.0475)	(0.0408)				(0.0661)	(0.0394)	(0.106)
AUDFE*Covid				-0.0125	0.00671	0.00577				-0.000123	-7.31e-05	0.000196
				(0.0273)	(0.0147)	(0.0127)				(0.0195)	(0.0116)	(0.0311)
AUDQO*Covid				0.0433	-0.0233	-0.0200				0.0433	0.0258	-0.0691
				(0.0573)	(0.0310)	(0.0265)				(0.0466)	(0.0278)	(0.0741)
Observations	376	376	376	376	376	376	376	376	376	376	376	376

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The average marginal effect in ordered probit regression refers to the average change in the probability of a specific outcome category due to a unit change in an independent variable while holding other variables constant. It provides insights into how changes in the independent variable impact the likelihood of moving from one outcome category to another; Trading suspension propensity; '1' if 1 time triggered, '2' if 2 times or more triggered, either and '0' otherwise.

Table 11: Covid-19 Hypothesis Tests

(1) AUDFS + AUDFS*Covid = 0

	Direct (SP_Actual)	Indirect (SP_Suspect)
chi2(1)	6.23	0.19
Prob > chi2	0.0125**	0.6594

(2) AUDSW + AUDSW*Covid = 0

	Direct (SP_Actual)	Indirect (SP_Suspect)
chi2(1)	0.06	8.84
Prob > chi2	0.8039**	0.0029

(3) AUDTEN + AUDTEN_Covid = 0

	Direct (SP_Actual)	Indirect (SP_Suspect)
chi2(1)	0.32	1.26
Prob > chi2	0.5699	0.2624

(4) AUDFE + AUDFE_Covid = 0

	Direct (SP_Actual)	Indirect (SP_Suspect)
chi2(1)	6.23	0.24
Prob > chi2	0.0126**	0.6222

(5) AUDQO + AUDQO_Covid = 0

	Direct (SP_Actual)	Indirect (SP_Suspect)
chi2(1)	7.78	0.01
Prob > chi2	0.0053***	0.9274

5.4 Robustness Test

The conclusions drawn in this paper could be subject to criticism due to sample selection bias in the observation period. The study did not include the possibility of trading suspensions occurring in 2019 as dependent variables, mainly to avoid redundancy in data collection due to lag time. To address this issue and potential endogeneity in the baseline results, we conducted an Ordered Probit estimation analysis in this section. The aim was to account for any unobserved trading suspension propensity in 2019, considering both direct and indirect evidence scenarios. The test results are presented in Tables 12 and 13, which incorporate the trading suspension propensity observed in 2019 as part of our dependent variable observations, irrespective of the impact of the Covid-19 pandemic.

The results from Model 5, examining direct evidence, remain consistent with Model 1 for all explanatory variables. The audit firm size (AUDFS) exhibits a negative effect on suspension propensity in terms of actual cases announced by the SEC, with a coefficient of -0.2329 at a 5% significance level ($p<0.05$), supporting H1. Conversely, audit fees (AUDFE) and audit opinions (AUDQO) have a positive effect on suspension propensity in terms of actual cases announced by the SEC, with coefficients of 0.9649 and 0.3858, respectively, at a 1% significance level ($p<0.01$), supporting H3 and H5, respectively. Additionally, the results of Model 5 show a negative impact of audit tenure (AUDTEN) on actual suspension propensity, with a coefficient of -0.1987 at a 5% significance level ($p<0.05$), rejecting hypothesis H4, similar to Model 1. However, the impact of audit switches (AUDSW) on actual suspension cases remains statistically insignificant, rejecting hypothesis H2.

According to Table 13, the average marginal effects amplify as follows:

i. When the client uses a Big-4 auditor, there is a decrease of -2.36% and -1.18% in the probability of triggering a suspension one time or two times or more, respectively. However, it increases the probability of not triggering a suspension by 3.54%.

ii. When there is a longer auditor-client relationship, there is a decrease of -2.01% and -1.01% in the probability of triggering a suspension one time or two times or more, respectively. However, it increases the probability of not triggering a suspension by 3.02%.

iii. When higher audit fees are charged, there is an increase of 9.77% and 4.89% in the probability of triggering a suspension one time, or two times or more, respectively. However, it decreases the probability of not triggering a suspension by -14.7%.

iv. When reporting unclear audit opinions, there is an increase of 3.91% and 1.95% in the probability of triggering a suspension one time, or two times or more, respectively. However, it decreases the probability of not triggering a suspension by -5.86%.

Likewise, the outcomes in Model 6 examining indirect evidence align with the outcomes of Model 3, except for audit tenure (AUDTEN), which is not a significant indicator. In contrast, audit switches (AUDSW) have a significant positive effect on suspected suspension cases, with a coefficient of 0.2067 at a 1% significance level ($p<0.01$) which apparently supports the H2 hypothesis. Whereas audit firm size (AUDFS), audit fees (AUDFE), and audit opinion (AUDQO) do not have significant impacts on suspected cases, similar to Model 3.

The change in probability when switching auditors, as calculated by average marginal effects, results in an increase of 5.43% and 2.63% in the propensity for triggering a suspension one time or two times or more, respectively. However, it leads to a decrease of -8.06% in the probability of not triggering a suspension.

In conclusion, considering the sample selection bias, we can confidently state that our conclusions remain robust after taking the so-called sample selection bias into consideration.

Table 12: Robustness Check

VARIABLES	Direct (SP_Actual) (5)	Indirect (SP_Suspect) (6)
AUDFS	-0.2329**	-0.0593
	(0.122)	(0.079)
AUDSW	0.1408	0.2067***
	(0.133)	(0.082)
AUDTEN	-0.1987**	0.0602
	(0.111)	(0.071)
AUDFE	0.9649***	0.2009
	(0.246)	(0.147)
AUDQO	0.3858***	0.055
	(0.096)	(0.074)
MBV	-0.0005	-0.0003
	(0.001)	(0.000)
ROA	-1.1743***	-0.0608
	(0.447)	(0.337)
EPS	-0.1678***	-0.0000
	(0.069)	(0.012)
OCF	-0.0000*	0
	(0.000)	(0.000)
LEV	0.3677*	0.1028
	(0.253)	(0.175)
Coysize	-0.2514**	-0.2541***
	(0.108)	(0.063)
DA	0.2869*	-0.1926
	(0.191)	(0.153)
Observations	1,115	1,115

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 13: Average Marginal Effects

	Direct (SP_Actual) (5)			Indirect (SP_Suspect) (6)		
VARIABLES	outcome(0)	outcome(1)	outcome(2)	outcome(0)	outcome(1)	outcome(2)
AUDFS	0.0354**	-0.0236**	-0.0118**	0.0231	-0.0156	-0.00755
	(0.0185)	(0.0124)	(0.00639)	(0.0306)	(0.0206)	(0.0100)
AUDSW	-0.0214	0.0143	0.00713	-0.0806***	0.0543***	0.0263***
	(0.0203)	(0.0135)	(0.00685)	(0.0317)	(0.0214)	(0.0107)
AUDTEN	0.0302**	-0.0201**	-0.0101**	-0.0235	0.0158	0.00766
	(0.0168)	(0.0113)	(0.00581)	(0.0278)	(0.0187)	(0.00909)
AUDFE	-0.147***	0.0977***	0.0489***	-0.0783	0.0528	0.0256
	(0.0376)	(0.0258)	(0.0143)	(0.0572)	(0.0386)	(0.0188)
AUDQO	-0.0586***	0.0391***	0.0195***	-0.0215	0.0145	0.00700
	(0.0146)	(0.00990)	(0.00565)	(0.0287)	(0.0194)	(0.00940)
MBV	0.0000	-0.0000	-0.0000	0.000136	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.000159)	(0.000107)	(0.0000)
ROA	0.178***	-0.119***	-0.0595**	0.0237	-0.0160	-0.00774
	(0.0678)	(0.0460)	(0.0239)	(0.131)	(0.0885)	(0.0429)
EPS	0.0255***	-0.0170***	-0.00850**	0.0000	-0.0000	-0.0000
	(0.0105)	(0.00707)	(0.00369)	(0.00468)	(0.00315)	(0.00153)
OCF	0.0000*	-0.0000*	-0.0000*	0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
LEV	-0.0559*	0.0372*	0.0186*	-0.0401	0.0270	0.0131
	(0.0385)	(0.0259)	(0.0130)	(0.0684)	(0.0461)	(0.0224)
Coysize	0.0382**	-0.0255**	-0.0127**	0.0991***	-0.0668***	-0.0323***
	(0.0165)	(0.0111)	(0.00573)	(0.0242)	(0.0163)	(0.00853)
DA	-0.0436*	0.0291*	0.0145*	0.0751	-0.0506	-0.0245
	(0.0289)	(0.0195)	(0.00977)	(0.0597)	(0.0403)	(0.0196)
Observations	1,115	1,115	1,115	1,115	1,115	1,115

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

This study hypothesizes one-sided tests hypothesis. According to Model 5 and 6, variables such as audit aspects are one-sided tests. These variables are expected to be a positive sign except AUDFS that is expected to be a negative sign.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Discussion

In estimating the models, we employed the Ordered Probit estimations. Our preference for the variable estimates used in discussing the results is based on descriptive statistics, correlation analysis, and empirical results.

6.1.1 Impact of Audit Firm Size on Trading suspension propensity

The descriptive statistics provided in Table 5 reveal that the average value of Audit Firm Size is 0.521, indicating that a majority of the observed companies were audited by Big-4 Audit Firms. This finding can be attributed to the perception of higher quality associated with larger audit firms, particularly those affiliated with the Big-4 brand, as perceived by listed companies in Thailand. This finding is consistent with previous research conducted by DeAngelo (1981), Copley (1991), Clarkson and Simunic (1994), Becker et al. (1998), Bauwhede et al. (2000), Zhou and Elder (2001), and Krishnan (2003), which have also highlighted the relationship between audit quality and audit firm size, emphasizing the greater ability of larger (Big-4) audit firms to detect and prevent earnings misstatements and trading suspensions.

Our findings indicate a significant concentration of companies opting for audit services from the Big-4 audit firms. Furthermore, the Ordered Probit estimations in Models 1 and 4 demonstrate a statistically significant negative impact of Audit Firm Size on trading suspension propensity for both actual and suspected cases at a 5% and 10% level of significance, respectively. However, the correlation analysis and empirical results in Models 2 and 3 suggest an insignificant negative impact. Although the results are mixed, they generally support the hypothesis that larger audit firms have a mitigating effect on trading suspension propensity. Consistent with this hypothesis, prior studies have shown that larger audit firms tend to conduct more effective audits due to the reputation at stake and their ability to attract highly skilled employees. This enhanced capability in detecting misstatements helps reduce information asymmetry among users of financial information and consequently lowers the likelihood of trading suspension.

6.1.2 Impact of Audit Switch on Trading suspension propensity

Based on the descriptive statistics provided in Table 5, the average value of Audit Switch is 0.545, indicating that over 54% of companies in our observation period (2016-2018 and 2020-2022) demonstrated a tendency to switch auditors. The empirical results from Models 2, 3, and 4 present significant evidence at a 5% and 1% level of significance, highlighting a notable impact of both actual and suspected cases. These findings suggest a positive association between the propensity to suspend stock trading and the decision to change auditors. The consistent frequency of the results indicates that changing auditors increases the likelihood of stock trading suspension. This positive relationship is also supported by Gul, Chen, Tsui, and Judy (2003) and Abbott, Parker, and Peters (2000).

Moreover, Johnson, Daily, and Ellstrand (1996) propose that an auditor change is linked to a decrease in audit quality, suggesting that such a change is undesirable and can potentially hinder the detection of misstatements in financial disclosures by non-independent auditors among listed companies. As a result, this study supports hypothesis H2, which posits a significant positive correlation between Audit Switch and Trading Suspension Propensity.

6.1.3 Impact of Audit Fees on Trading suspension propensity

According to the empirical findings, there exists a positive relationship between audit fees and trading suspension propensity, specifically in actual cases reported by the SEC. This implies that higher audit fees are associated with an increased likelihood of earnings management and manipulation, which in turn contributes to higher trading suspension propensity. This phenomenon can be explained by the concept of economic bonding, whereby auditors may be more inclined to accept questionable accounting practices when they receive substantial fees from their clients. Supporting this notion, Srinidhi and Gul (2007) demonstrate a positive correlation between audit fees and accrual quality. Additionally, Gosh and Moon (2005) suggest a negative impact of audit fees on audit quality.

However, when examining suspected cases, the study yields conflicting results, as the hypothesis linking audit fees and trading suspension propensity is not supported. Furthermore,

when considering indirect evidence, the impact of audit fees on stock suspension appears to be insignificant. Therefore, the study provides mixed findings regarding the relationship between trading suspension and audit fees.

These inconsistent results raise concerns, as suspected cases identified by the model may not accurately reflect the full probability of trading suspension cases. The criteria used to identify abnormal returns and price reversals may not fully capture companies' prominent level of concern regarding stock trading, such as insider trading or market manipulation, due to potential inaccuracies in publicly available information.

6.1.4 Impact of Audit Tenure on Trading suspension propensity

Audit tenure, as defined in this study, refers to the duration of the auditor-client relationship. The descriptive statistics indicate that, on average, companies engage the services of their auditor for a period exceeding three years (Mean = 1.422). The findings reveal that a substantial number of auditors in the sample have extensive experience in this distribution.

The Ordered Probit estimations present mixed results regarding the impact of audit tenure on trading suspension. While the direct evidence suggests a negative relationship, the indirect evidence indicates a positive relationship. Consequently, based on the empirical findings, the hypothesis proposing a positive association between audit tenure and trading suspension is rejected.

These rejected hypotheses suggest that a long-standing relationship between the auditor and the client does not necessarily translate into a close relationship between the auditor and the client's management. This lack of proximity may pose challenges for auditors in expressing their professional opinions, thereby compromising audit quality. This situation could lead to a diminished level of caution on the part of auditors and a more accommodating attitude towards senior management. Consequently, there may be an incentive for the manipulation of financial information, which can contribute to trading suspension. Conversely, Gosh and Moon (2005) found that investors and rating agencies rely more heavily on audited financial reports as the

tenure of the auditor increases. These studies suggest that longer audit tenure may enhance audit quality, reduce earnings management, and mitigate the propensity for trading manipulation.

During the first and second years, auditors may still be in the process of comprehending the entity's environment and internal control, which can limit their ability to detect misstatements.

In Thailand, it is common for listed companies to change auditors every five years. However, regulatory standards dictate that audit tenure should not exceed seven years, and former auditors should be suspended for five years, aligning with international norms. These regulations aim to promote independence and build investor confidence in the use of financial reports for investment decision-making.

6.1.5 Impact of Qualified Audit Opinion on Trading suspension propensity

According to the descriptive statistics report, the average value of audit opinion is 0.444, indicating that, on average, auditors provided an Unqualified opinion. Only a small number of companies received unclean opinions (Qualified opinions) from their auditors. A Qualified opinion suggests that there was either a limitation in the scope of the audit, a specific issue identified in the audit of the financial statements that was not widespread, or insufficient disclosure in the footnotes. In other words, a Qualified opinion is an auditor's judgment that the financial statements are presented fairly, except for a specified area.

As presented by the empirical tests, the results of audit opinion appear as same as the audit fees in cases that provide diversified outcomes which expose both positive significant and insignificant impacts on trading suspension propensity. A positive correlation occurred in Direct evidence following Models 1, 2 and 5. Although this result seems to move along the direction of the audit opinion hypothesis that unclean audit reports are more likely to misunderstand the content defined in the company’s financial statement and misinterpret the company’s performance and its value, perhaps leading informed users or internal management to take advantage of the unusual trading transaction triggered to a higher chance of trading suspension. However, for indirect evidence, the outcomes still show an insignificant correlation. This study therefore could only support the fifth hypothesis that: There is a positive correlation between

Qualified Audit Opinion on Trading suspension propensity for actual cases and rejection for suspected cases. The different outcomes possibly came from the indicators used for data collection of suspected cases of trading suspension as mentioned in 6.1.3.

6.1.6 Change in the Impact of Audit Quality on Trading suspension propensity after the Outbreak of the Covid-19 Pandemic

Based on the empirical findings regarding the impact of audit quality on trading suspension propensity during the COVID-19 pandemic, it is observed that, overall, there is no significant change in audit quality in terms of professional treatment, except for the Audit firm size variable, which shows a significant change at a 5% and 10% significance level in Models 2 and 4. The study reveals that auditors, regardless of their size, faced challenges in dealing with resource-intensive and judgment-intensive accounts, such as inventory and R&D expenditures, due to restrictions on physical and on-site interactions caused by the pandemic. While Big 4 auditors managed to maintain their level of audit quality following the COVID-19 restrictions, non-Big 4 auditors faced difficulties in adapting to the online work environment, resulting in a decline in their audit quality. This finding aligns with prior research conducted by Sabrina Gong, Nam Ho, Justin Yiqiang Jin, and Kiridaran Kanagaretnam (2022).

However, when considering various dimensions of audit quality, such as audit switch, audit fees, audit tenure, and audit opinion, the study finds that the COVID-19 pandemic did not diminish audit quality. A plausible reason for this is that audit firms, in implementing work-from-home strategies, are advised to invest more in digital programs, such as artificial intelligence, blockchain, network security, and data function development. These technological advancements can enhance adaptability to the work-from-home experience, ultimately improving the effectiveness and flexibility of communication between auditors and their clients. The authors also recommend that stock markets and governmental bodies provide temporary relaxations in compliance requirements for corporations, which can aid firms in reporting more accurate earnings figures while maintaining a similar quality of audit treatment as before the COVID-19 period.

The findings of the study indicate that the auditor-client relationship has not been equally affected by the pandemic. Although auditors have lost the added value of being physically present and face challenges in gaining comprehensive knowledge about their clients in the long term, the study shows that the quality of audits has not decreased significantly. This can be attributed to several factors, including the successful implementation of digital meetings, the maintenance of the same number of meetings, clients' adaptation to new circumstances, and the ability to maintain proactive relationships. Despite changes in communication channels and meeting formats, the relationships between auditors and clients remain intact, leading to no significant effect on audit quality. However, if the Big Four audit firms can effectively harness the positive aspects of digital development accelerated by the COVID-19 pandemic, it presents an opportunity to produce higher audit quality in the future. Therefore, this study emphasizes that digital meetings should be viewed as a complement rather than a substitute for physical meetings in the future. Additionally, the study indicates that auditor independence remains strong and that COVID-19 has not significantly impacted auditor independence or altered the effect of audit quality on trading suspension propensity. As a result, hypothesis H6, which suggests no significant change in the relationship between audit quality and trading suspension propensity during COVID-19 compared to the previous pandemic period, is rejected.

6.2 Conclusion and Suggestions

The absence of addressing accurate and up-to-date financial information, as well as suspected manipulative and fraudulent activities, constitutes a significant concern when it comes to the likelihood of trading suspension. Trading suspension is commonly employed by stock exchanges worldwide as a precautionary measure to discourage investors from engaging in transactions involving irregular stocks. However, the academic realm has thus far allocated limited attention regarding the use of trading suspension signals as an indicator of stock trading concerns, resulting in a substantial research gap in this area.

This paper seeks to fill this gap by examining whether audit quality can mitigate the probability of stock trading suspension. Additionally, it investigates whether the relationship between audit quality and the propensity for trading suspension may be altered by the Covid-19 pandemic. To accomplish this, the study draws upon both direct evidence, encompassing 514 documented cases of trading suspension disclosed by the Securities and Exchange Commission (SEC), and indirect evidence, comprising 514 suspected cases identified through a trading suspension propensity identification model.

The study explores the influence of various aspects of audit quality on trading suspension propensity. The findings indicate that audit firm size, particularly the presence of Big-4 firms, is associated with higher perceived audit quality. This aligns with prior research, suggesting that larger audit firms possess greater capabilities to minimize earnings misstatements and trading suspension propensity. Furthermore, the study reveals a significant positive relationship between trading suspension propensity and auditor changes, indicating that companies that switch auditors are more likely to experience trading suspensions. Additionally, higher audit fees are found to be positively correlated with trading suspension propensity based on direct evidence, potentially exacerbating earnings management and manipulation. The presence of a qualified audit opinion also suggests a higher likelihood of trading suspension, although the specific impact varies between direct and indirect evidence.

The inconsistent results regarding audit fees and audit opinion between direct and indirect evidence may be due to the limitation that suspected cases derived from the identification model

may not fully reflect the probability of trading suspension cases in our observations. There may be other indicators and factors that should be considered unless abnormal returns and price reversal truly indicate a prominent level of concern about stock trading, such as insider trading or market manipulation resulting from the lack of accuracy in publicly available information.

Meanwhile, the effect of audit tenure on trading suspension propensity remains inconclusive, with longer tenure potentially unnecessarily compromising audit quality due to closer relationships with client management. Some prior research argued that investors and rating agencies depend on audited financial reports to define the stock trading anomaly more strongly as auditor tenure rises with higher experience, leading to a greater understanding of the client's business environment and potentially diminishing trading suspension propensity.

Regarding the Covid-19 pandemic, overall audit quality did not undergo significant changes, but non-Big 4 auditors faced challenges in maintaining quality in the online work environment. The study suggests integrating digital meetings with physical ones in the future. Furthermore, the pandemic did not significantly affect the aspects of audit quality i.e., audit switch, audit fees, audit tenure, and audit opinion, nor did it alter the relationship between audit quality and trading suspension propensity. Although the Covid-19 pandemic is ongoing, its effects on audit quality and trading suspension propensity have been less pronounced than anticipated by experts and researchers. Despite changes in communication and the auditor-client relationship, the findings indicate no significant effect on audit quality within the auditor-client relationship. The same applies to auditor independence.

While the outcomes of this study align with findings from certain comparable studies conducted in more advanced economies, it is important to note that the conclusions reached herein are based on a sample that excludes listed companies and other firms outside the MAI and SET50 of the stock market in Thailand. Additionally, the sample encompasses six years of data extracted from the annual accounts of selected companies. These limitations introduce a potential amplification of the external validity problem, restricting the generalizability of the results to different time periods and locations. Furthermore, the study does not account for the impact of

inflation on financial statement figures and the market value of equity for listed companies in Thailand.

In Thailand, specifically, and to the best of our knowledge, only a limited number of studies have examined the effects of audit quality on the trading suspension propensity of listed companies. Therefore, this study contributes to knowledge by demonstrating that audit quality can serve as a signal to trigger potential trading suspension and elicit responses from management, investors, and regulators. This study is one of the few that directly relate audit quality to the propensity of trading suspension. Furthermore, it contributes to knowledge by integrating three research areas: trading suspension propensity, audit quality, and the Covid-19 pandemic, which have previously lacked cohesion and consistency.

In conclusion, this study finds that some aspects of audit quality are capable to mitigate the propensity of trading suspension caused by either error or faulty action of insiders. The findings presented in this paper carry substantial implications for policy formulation aimed at safeguarding the interests of small investors and enhancing market quality. Recognizing the detrimental effects of trading suspension propensity on audit efficiency, it is imperative to establish an alert system that bolsters detection capabilities. Furthermore, there is a need to amplify the severity of sanctions as a deterrent against irregularities related to financial information. Strengthening both external oversight and internal governance mechanisms can also play a crucial role in mitigating the occurrence of stock suspensions. By effectively curbing trading suspension propensity, the fairness of the market can be upheld, the interests of small investors can be protected, and overall market quality can be enhanced.

APPENDIX

Table 1: Trading Sign enforced by SEC[4]

Sign	Sign name	Description
H	Trading Halt	Trading will be stopped with a maximum of one trading session. Trading halts could occur due to: 1. Major changes or significant events in relation to the listed company occur during trading hours. Related companies must urgently declare their situation to the SET. 2. Trading conditions (such as price volatility) specify insider trading, i.e., few investors may receive confidential news or listed company information before they are published. officially to the public 3. Issuer's request to clarify important developments or to announce news during trading hours. 4. Important events that may attack the SET CONNECT trading system. If the SET deems it appropriate and/or upon clarification or resolution of the situation, the Halt sign may be removed at any time during the trading session.
SP	Trading Suspension	Securities trading is suspended for more than one trading session. Trading suspensions can be imposed due to: 1. Changing the NP sign to an SP sign because the issuer failed to comply with the SET's disclosure rules. 2. The issuer fails to comply with the requirements or provide a sufficient explanation of the change in stock price without legitimate reasons. 3. The financial statement issuer fails to submit the financial statements within the period specified by the SET. 4. The listed company's securities are in the process of delisting consideration, or the company is still rectifying the weakness within the period specified by the SET. 5. The listed securities mature for redemption, conversion, or exercise of rights.

[4] Trading sign https://www.set.or.th/en/market/information/trading-procedure/trading-signs

Sign	Sign name	Description
		6. Any other events that may severely affect the trading of listed securities have happened. *Note: Trading suspension sign is applied to this study in term of explained variable consideration.
C	Caution	The C sign represents a listed company in an event that may affect the business operations and financial position of the company.
NP	Notice Pending	The SET has received incomplete or unclear information or is waiting for the clarification of additional information from the issuer.
NR	Notice Received	The issuing company has sufficiently disclosed additional information requested by the SET.
NC	Non-Compliance	The listed company's securities may be possible delisted or temporarily allowed to be traded.
ST	Stabilization	The stock of the listed company is in the process of being bought for delivery to exercise overallotment options.

Note: The Securities and Exchange Commission (SEC) implements various trading regulations in the Thai securities market. This study specifically focuses on the application of the trading suspension sign (SP) as an explained variable.

Table 2: The Cases of Trading Suspension in SET50 and MAI disclosed by the SEC[5]

Company	Symbol	Industry
AI ENERGY	AIE	Resources
AIRA CAPITAL	AIRA	Financials
ALL INSPIRE DEVELOPMENT	ALL	Property & Construction
ALPHA DIVISIONS	ALPHAX	Consumer Products
ASIA CAPITAL GROUP	ACAP	Financials
ASSET FIVE GROUP	A5	Property & Construction
BANGKOK DEC-CON	BKD	Property & Construction
BANGKOK SHEET METAL	BM	Industrial
BANPU	BANPU	Resources
BGT CORPORATION	BGT	Consumer Products
BTS GROUP HOLDINGS	BTS	Services
BUILDERSMART	BSM	Property & Construction
C.I.GROUP	CIG	Industrial
CENTRAL PATTANA	CPN	Property & Construction
CHO THAVEE	CHO	Industrial
DENTAL CORPORATION	D	Services
DIMET (SIAM)	DIMET	Property & Construction
DOD BIOTECH	DOD	Consumer Products
DV8	DV8	Services
E FOR L AIM	EFORL	Consumer Products
EAST COAST FURNITECH	ECF	Consumer Products
ENERGY ABSOLUTE	EA	Resources
EUREKA DESIGN	UREKA	Industrial
FILTER VISION	FVC	Services
FORTUNE PARTS INDUSTRY	FPI	Industrial
GRATITUDE INFINITE	GIFT	Industrials
HALCYON TECHNOLOGY	HTECH	Industrials
HARN ENGINEERING SOLUTIONS	HARN	Services
HEALTH EMPIRE CORPORATION	HEMP	Services
HOME POTTERY	HPT	Consumer Products
HYDROTEK	HYDRO	Property & Construction
INDORAMA VENTURES	IVL	Industrials
INTERLINK TELECOM	ITEL	Technology
INTERNATIONAL RESEARCH	IRCP	Technology
JAY MART	JMART	Technology
JKN GLOBAL GROUP	JKN	Services
JMT NETWORK SERVICES	JMT	Financials
KIATTANA TRANSPORT	KIAT	Services
KING GEN	KGEN	Services
KINGSMEN C.M.T.I.	K	Property & Construction
L.V. TECHNOLOGY	LVT	Industrial
LEASE IT	LIT	Financials
META CORPORATION	META	Property & Construction
MINOR INTERNATIONAL	MINT	Agro & Food Industry
MOONG PATTANA INTERNATIONAL	MOONG	Consumer Products
MORE RETURN	MORE	Services
MULTIBAX	MBAX	Industrial
N.D. RUBBER	NDR	Industrial

[5] http://161.200.66.3:8080/ism/historicalNews.html

Company	Symbol	Industry
NATION INTERNATIONAL	NINE	Services
NCL INTERNATIONAL LOGISTICS	NCL	Services
NEWS NETWORK CORPORATION	NEWS	Services
NIRVANA DAII	NVD	Property & Construction
PHOL DHANYA	PHOL	Services
PIONEER MOTOR	PIMO	Industrial
PLANET COMMUNICATIONS ASIA	PLANET	Technology
PORN PROM METAL	PPM	Industrial
POWER SOLUTION TECHNOLOGIES	PSTC	Resources
PRIME ROAD POWER	PRIME	Resources
PROJECT PLANNING SERVICE	PPS	Property & Construction
PROUD REAL ESTATE	PROUD	Property & Construction
PSG CORPORATION	PSG	Property & Construction
QTC ENERGY	QTC	Resources
RAYONG WIRE INDUSTRIES	RWI	Industrial
RICHY PLACE 2002	RICHY	Property & Construction
SAAM DEVELOPMENT	SAAM	Resources
SALEE COLOUR	COLOR	Industrial
SANKO DIECASTING (THAILAND)	SANKO	Industrial
SEA OIL	SEAOIL	Resources
SGF CAPITAL	SGF	Financials
SHERWOOD CORPORATION (THAILAND)	SWC	Industrial
SIMAT TECHNOLOGIES	SIMAT	Technology
SKY ICT	SKY	Technology
SKY TOWER	STOWER	Resources
SLM CORPORATION	SLM	Services
SMART CONCRETE	SMART	Property & Construction
SRISAWAD CORPORATION	SAWAD	Financials
STAR SITTHI SOLUTION	SSS	Property & Construction
T S FLOUR MILL	TMILL	Agro & Food Industry
T.M.C. INDUSTRIAL	TMC	Industrial
TAKUNI GROUP	TAKUNI	Resources
TAPACO	TAPAC	Property & Construction
THAI PLASPAC	TPAC	Industrials
THE BROOKER GROUP	BROOK	Financials
THREE SIXTY FIVE	TSF	Services
TV THUNDER	TVT	Services
TVD HOLDINGS	TVDH	Services
UBIS (ASIA)	UBIS	Industrial
UNION PETROCHEMICAL	UKEM	Industrial
UNIQUE MINING SERVICES	UMS	Resources
UNITED POWER OF ASIA	UPA	Resources

As presented in Table 2, the Securities and Exchange Commission (SEC) disclosed a total of 90 listed companies of Trading Suspension in SET50 and MAI for the years 2016 to 2018 and 2020 to 2022. These cases were considered for analysis in relation to the explained variables, using direct evidence.

Table 3: Variable definitions

Variables	Types	Definitions	Value	Sources
SP	Dependent	Trading suspension propensity	'1' if 1 time triggered during each observation period, '2' if 2 times or more triggered, either and '0' otherwise.	● Trading suspension cases - SETSMART ● Suspected cases defined by Identification model
AUDFS	Independent	Audit Firm Size; Big-4 and Non-Big-4 audit firms	'1' if Big-4 for 1 year before SP or during each observation period and '0' if otherwise	● Annual report ● Audit's report
AUDSW	Independent	Auditor Switch; Frequency to switch auditor	'1' if switch the auditor 1 year before SP or during each observation period, either and '0' if otherwise.	● Annual report ● Audit's report
AUDFE	Independent	Audit Fees; the audit fees paid by the client	Average Natural Log of the audit fees paid by the client.	● Annual report
AUDTEN	Independent	Audit Tenure; Length of auditor-client relationship	'1' if 1-3 years before SP or during each observation period, '2' if over 3 years and '0' if otherwise.	● Annual report ● Audit's report
AUDQO	Independent	Qualified Audit Opinion; Types of audit opinion	'0' if unqualified opinion reported 1 year before SP or during each observation period, '1' if unqualified opinion with other matters and '2' if Qualified opinion.	● Annual report ● Audit's report
Covid	Moderator	Covid-19 period during 2020 - 2022	The time of COVID-19: 1 if period is during 2020 - 2022 and, 0 otherwise.	● Fiscal years

Variables	Types	Definitions	Value	Sources
MBV	Control	Market to Book Value of equity; The Market Growth Prospects of the Company	Market Value divided by Book Value of Company's Equity	● Refinitiv ● Financial reports
ROA	Control	Return On Assets;	Income before tax is divided by total assets.	● Refinitiv ● Financial reports
EPS	Control	Earnings Per Share;	Net income divided by the number of common shares as reported in the Annual Financial statements of sampled companies.	● Refinitiv ● Financial reports
OCF	Control	Operating Cash Flow;	Net operating cashflow	● Refinitiv ● Financial reports
LEV	Control	Leverage;	Total liabilities divided by total assets.	● Refinitiv ● Financial reports
Coysize	Control	Company Size	Average Natural log of company Total Assets is a proxy.	● Refinitiv ● Financial reports
DA	Control	Discretionary Accruals	Absolute of Discretionary Accruals	● Refinitiv ● Financial reports

Table 4: Contributions of Discretionary Accruals (DA)

Table 4.1: Descriptive statistics

Summary statistics

	N	mean	SD	min	max	variance	skewness	kurtosis	p25	p50	p75
$TA_{i,t}/A_{i,t-1}$	1506	.07	0.319	-4.534	2.184	.102	-4.438	57.136	-.021	.092	.198
$(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1}$	1506	.048	0.329	-1.764	5.563	.109	6.051	86.214	-.056	.02	.115
$PPE_{i,t}/A_{i,t-1}$	1506	.309	0.275	0	2.372	.076	1.367	7.421	.06	.267	.497
$1/A_{i,t-1}$	1506	0	0.000	0	0	0	17.431	396.685	0	0	0

The data collection process employed the Panel data method. The dataset consisted of 1,506 observations derived from the financial information of listed companies in the SET50 and MAI indexes. These observations covered the time period from 2016 to 2022 (denoted as time t), as well as the preceding year from 2015 to 2021 (denoted as time t-1), on a yearly basis.

Table 4.2: Correlations – Total Accruals

Pairwise correlations

Variables	(1)	(2)	(3)	(4)
(1) $TA_{i,t}/A_{i,t-1}$	1.000			
(2) $(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1}$	0.083***	1.000		
(3) $PPE_{i,t}/A_{i,t-1}$	0.175***	0.055**	1.000	
(4) $1/A_{i,t-1}$	-0.319***	0.230***	-0.028	1.000

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

Table 4.3: Variance inflation factor (VIFs)

Variance inflation factor

	VIF	1/VIF
$(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1}$	1.060	.943
$PPE_{i,t}/A_{i,t-1}$	1.058	.945
$1/A_{i,t-1}$	1.005	.995
Mean VIF	1.041	.

The findings, as presented in Table 4.3, demonstrate that the Variance Inflation Factors (VIFs) for the explanatory variables hover around 1.0. These values indicate that the presence of multicollinearity is not anticipated to have a substantial impact on the results of our analysis.

Table 4.4: Ordinary Least Squares regression – Total Accruals

	OLS
VARIABLES	$TA_{i,t}/A_{i,t-1}$
$(\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1}$	0.150***
	(0.0237)
$PPE_{i,t}/A_{i,t-1}$	0.181***
	(0.0276)
$1/A_{i,t-1}$	-45,149***
	(3,151)
Constant	0.0622***
	(0.0121)
Observations	1,506
R-squared	0.152

Standard errors in parentheses

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

The coefficients obtained from the Ordinary Least Squares (OLS) regression analysis in Table 4.4 are utilized as the estimator for calculating Non-Discretionary Accruals (NDA). This calculation ultimately yields the estimated value of Discretionary Accruals (DA), along with the inclusion of control variables. The incorporation of Discretionary Accruals is a common practice in earnings management studies, serving as a standard measure.

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