

MINISTRY OF INDUSTRY AND TRADE
HANOI UNIVERSITY OF INDUSTRY



TRAN THUY LINH

**THE IMPACT OF FINANCIAL STATEMENT AUDIT QUALITY
ON THE COST OF DEBT OF NON-FINANCIAL FIRMS LISTED
ON THE VIETNAMESE STOCK MARKET**

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Scientific supervisors:

1. Assoc. Prof. Dr. Dang Ngoc Hung
2. Dr. Hoang Thi Viet Ha

Reviewer 1: Associate Professor, Dr. Pham Duc Hieu

Reviewer 2: Associate Professor, Dr. Nguyen Phong Nguyen

Reviewer 3: Associate Professor, Dr. Nguyen Thi Xuan Hong

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INTRODUCTION

1. Research rationale

Financial statement audit quality is widely regarded as one of the key foundations for ensuring corporate financial transparency. Through its assurance function, auditing helps reduce the risk of material misstatements in financial statements, thereby mitigating information risk between firms and their stakeholders. Enhanced financial transparency strengthens the confidence of creditors, investors, and regulatory authorities, while also reflecting a firm's compliance capacity and financial credibility.

In addition to its important role in enhancing the transparency and reliability of financial information, financial statement audit quality has been conceptualized from various perspectives in the academic literature (DeAngelo, 1981; Watts & Zimmerman, 1986; Becker et al., 1998; Francis & Krishnan, 1999; Francis, 2004). Despite differences in approach, these perspectives generally agree that audit quality plays an important role in improving information transparency and reducing information asymmetry between firms and their stakeholders.

The cost of debt is an important indicator of a firm's financing capacity and financial creditworthiness in capital markets. The level of the cost of debt not only directly affects a firm's financial performance but also reflects the degree of confidence that creditors, banks, and investors place in the financial information disclosed by the firm. According to Akerlof's (1970) information asymmetry theory and Spence's (1973) signaling theory, when information between firms and capital providers is incomplete or insufficiently transparent, creditors tend to demand higher interest rates as compensation for greater risk. Conversely, Kim et al. (2011) and Lennox and Pittman (2008) suggest that higher financial statement audit quality enhances the credibility of financial reporting, reduces information asymmetry between firms and creditors, and consequently lowers borrowing costs.

In practice, major financial scandals worldwide, such as Enron, WorldCom, and Parmalat, severely undermined investor confidence and prompted countries to strengthen their regulatory frameworks, most notably through the enactment of the Sarbanes–Oxley Act (2002) in the United States. In Vietnam, alongside the rapid development of the stock market, increasing attention has been paid to information transparency and the reliability of financial statements. Nevertheless, financial transparency among non-financial firms listed on the Vietnamese stock market remains relatively limited, while financial reporting fraud and misstatements have been considered a serious concern (Hung, 2024). In some cases, serious violations have even resulted in firms being delisted from the stock market, as illustrated by the cases of FLC and ROS.

A substantial body of international research, including Fernando et al. (2010), Houmes et al. (2019), Kordlouie et al. (2018), and Persakis and Iatridis (2015), provides evidence that higher financial statement audit quality can reduce the cost of debt. More reliable audited financial statements help mitigate information asymmetry and enhance firms' reputation and creditworthiness in the eyes of capital providers.

Vietnam is an emerging economy in which bank credit plays an important role in providing capital to firms, while direct financing channels in the capital market remain under development. Consequently, the lending relationship between firms and banks constitutes a significant component of corporate financing. In this relationship, banks rely on information concerning firms' financial position, operating performance, cash-generating capacity, and business prospects to assess risk and determine credit terms. However, firms typically possess an informational advantage regarding their own financial conditions and prospects relative to lenders, thereby creating information asymmetry between the two parties. When lenders' ability to accurately assess firm risk is constrained, uncertainty in credit decisions may increase, providing a basis for creditors to require a higher risk premium and, consequently, raising the cost of debt. Empirical evidence from Vietnam indicates that accounting information quality is associated with the cost of debt, suggesting that the quality of financial information may be reflected in creditors' loan-pricing decisions (Le et al., 2021a).

In this context, audited financial statements are particularly important in reducing uncertainty surrounding the information provided by firms to external stakeholders. Independent auditors do not generate firms' financial information; rather, they provide reasonable assurance that the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. Accordingly, the quality of a financial statement audit may influence the extent to which creditors rely on financial information when evaluating firms. From a signaling-theory perspective, audit quality can serve as an external signal that assists users in assessing the credibility of information disclosed by firms. When financial information becomes more reliable, creditors may face less uncertainty in assessing risk, thereby enabling them to make more appropriate lending and loan-pricing decisions. Therefore, in an economy where bank credit plays an important role in corporate financing, the informational value of audit quality is relevant not only to investors' decisions in capital markets but also directly to the relationship between firms and creditors.

The Vietnamese context therefore provides a particularly relevant setting for examining this mechanism. The important role of bank credit makes the cost of debt a significant consideration in corporate financing decisions, while information asymmetry increases the demand for mechanisms that enhance the reliability of financial information. The combination of these two characteristics suggests that financial statement audit quality may generate economic benefits beyond regulatory compliance. By improving the credibility of financial statements, auditing may assist creditors in assessing firms' repayment capacity and risk exposure and may therefore influence the credit terms available to firms. This perspective is consistent with studies emphasizing the informational role of auditing in emerging markets, where audit quality is viewed not only as an assurance mechanism for investors but also as a means of reducing information risk for providers of capital.

Existing empirical evidence from Vietnam provides initial support for this argument, while also indicating the need for further investigation. Le et al. (2021b) find that financial statement audit quality, proxied by whether a firm is audited by a Big Four audit firm, is negatively associated with the cost of equity of Vietnamese listed firms. The authors interpret this result as evidence of the informational role of

auditors in an emerging-market setting. With respect to the cost of debt, Khuong et al. (2021) show that audit opinions are associated with the cost of debt among Vietnamese listed firms, with firms receiving modified audit opinions facing higher interest rates and shorter loan maturities. In addition, Le et al. (2021a) provide evidence of a negative association between accrual quality and the cost of debt, indicating that the quality of accounting information is relevant to creditors' pricing of credit risk.

Nevertheless, the existing evidence does not fully capture the effect of financial statement audit quality on the cost of debt when audit quality is treated as a multidimensional construct. Studies in Vietnam have largely examined individual dimensions of information or auditing, such as accounting information quality, audit firm size, or audit opinion. However, financial statement audit quality is a complex construct that may be reflected in multiple characteristics of the audit process and its outcomes. Simultaneously considering relevant dimensions of audit quality may therefore provide more comprehensive evidence on the role of auditing in reducing information risk and assisting creditors in firm evaluation. This research gap is particularly important in the Vietnamese context because, where bank credit plays a significant role in corporate financing, the economic benefits of audit quality may be reflected not only in investment decisions but also in the cost that firms incur to obtain debt financing.

In addition to the characteristics of the financing structure and information environment, the 2017–2024 period provides an appropriate setting in which to examine this relationship. This period encompasses the pre-COVID-19 phase, the period affected by the pandemic, and the subsequent economic recovery. Changes in the business environment and financing conditions during this period made the assessment of risk, cash-generating capacity, and access to finance particularly important. Under such circumstances, the reliability and timeliness of financial information may become increasingly relevant to credit decisions, thereby reinforcing the need to examine whether financial statement audit quality contributes to reducing firms' cost of debt.

Taken together, these characteristics make Vietnam a meaningful setting for investigating the impact of financial statement audit quality on the cost of debt. The important role of bank credit makes borrowing costs a significant financial concern for firms, while information asymmetry in the firm–creditor relationship creates demand for mechanisms capable of enhancing the credibility of financial information. In this context, independent auditing may perform an important informational role by improving the reliability of financial statements, thereby influencing creditors' perceptions of firm risk and the terms on which credit is provided. However, evidence regarding the effect of multidimensional financial statement audit quality on the cost of debt of non-financial firms in Vietnam remains limited. Investigating this relationship therefore not only contributes additional empirical evidence to information asymmetry theory and signaling theory but also helps clarify the economic value of financial statement audit quality in an emerging market whose corporate financing structure relies substantially on bank credit.

In summary, as Vietnam continues to pursue the development of a more transparent, sustainable, and internationally integrated financial market, research on

“The Impact of Financial Statement Audit Quality on the Cost of Debt of Non-Financial Firms Listed on the Vietnamese Stock Market” is both necessary and practically significant. The study not only contributes to the theoretical literature on financial statement audit quality and the cost of debt but also provides useful implications for relevant stakeholders in policymaking, corporate governance, and financial decision-making.

2. Research objectives and research questions

Overall objective

The primary objective of this study is to measure and analyze the impact of financial statement audit quality on the cost of debt of non-financial firms listed on the Vietnamese stock market.

Specific objectives

From the overall research objective, the study identifies the following specific objectives:

Objective 1: To identify the dimensions of financial statement audit quality and select appropriate proxies for measuring audit quality in examining its impact on the cost of debt of non-financial firms listed on the Vietnamese stock market.

Objective 2: To empirically examine the impact of financial statement audit quality on the cost of debt of non-financial firms listed on the Vietnamese stock market.

To achieve these objectives, the dissertation addresses the following research questions:

Research Question 1: How should financial statement audit quality be measured, and which proxies are appropriate for examining its impact on the cost of debt of non-financial firms listed on the Vietnamese stock market?

Research Question 2: How does financial statement audit quality affect the cost of debt of non-financial firms listed on the Vietnamese stock market?

3. Research subject and scope

Research subject

The study focuses on audit quality and its impact on the cost of debt of firms.

Research scope

Geographical scope: The study examines non-financial firms listed on the Ho Chi Minh Stock Exchange (HOSE), Hanoi Stock Exchange (HNX), and the Unlisted Public Company Market (UPCoM).

Time scope: The study selects the 2017–2024 period to ensure a sufficiently long and continuous observation window while also capturing notable changes in the legal and regulatory environment governing auditing, corporate governance, and information disclosure in the Vietnamese stock market. The year 2017 represents the first full financial year following the effective date of Decree No. 84/2016/ND-CP, which sets out the standards and conditions applicable to practicing auditors and audit firms approved to audit public interest entities. In the same year, Decree No. 71/2017/ND-CP was issued to strengthen corporate governance and disclosure requirements for public companies. During the study period, this regulatory framework continued to be refined through the Law on Securities No. 54/2019/QH14, Decree No. 155/2020/ND-CP, and Circular No. 96/2020/TT-BTC on information disclosure in the securities market. The 2017–2024 period also covers the pre-COVID-

19, COVID-19, and post-pandemic phases, thereby allowing the relationship between financial statement audit quality and the cost of debt to be examined under different institutional and economic conditions.

4. Research methodology

To achieve the research objectives, this study adopts a mixed-methods approach, combining qualitative and quantitative research.

Qualitative research: In the initial phase, qualitative methods, including expert interviews and surveys, are employed to: (1) develop a research model examining the impact of audit quality on the cost of debt; and (2) refine and adapt measurement scales from prior studies to fit the Vietnamese context.

Quantitative research: Based on the qualitative findings, quantitative analysis is conducted using STATA software. This phase aims to empirically test the impact of audit quality on the cost of debt. The data are processed through a rigorous procedure, including data cleaning, diagnostic testing for econometric issues, hypothesis testing, and interpretation of relationships within the proposed model.

Additionally, follow-up expert interviews are conducted to provide deeper insights into unexpected empirical findings, particularly within the context of the Vietnamese stock market.

5. Novel contributions of the dissertation

Theoretical contributions

First, the study employs multiple proxies to measure audit quality, including audit firm size and reputation, auditor switching, unqualified audit opinions, and audit report lag, and constructs a composite measure to capture audit quality more comprehensively. This multidimensional approach goes beyond traditional measures that rely solely on Big4 audit firms.

Second, the dissertation systematizes and extends the theoretical framework for evaluating the impact of audit quality on the cost of debt, particularly in the context of Vietnam's capital market.

Practical contributions

First, the study provides empirical evidence on the impact of audit quality on the cost of debt of non-financial firms in Vietnam, grounded in agency theory, signaling theory, and information asymmetry theory. The findings reinforce and extend international evidence on the role of audit quality in reducing information risk and borrowing costs.

Second, the study contributes additional empirical evidence in the context of an emerging economy like Vietnam, where the credit market remains bank-dependent, audit quality varies, and the legal framework is still evolving.

Third, the study proposes policy implications for regulators, particularly the Ministry of Finance and the State Securities Commission, to improve the legal framework and strengthen audit quality oversight.

Fourth, for firms, the findings highlight the importance of audit quality in enhancing credibility and reducing financing costs.

Fifth, for banks and credit institutions, the study clarifies the relationship between audit quality and credit risk, supporting more effective lending decisions.

Sixth, for researchers, the dissertation serves as a valuable academic reference for future studies on audit quality, cost of debt, and financial transparency in emerging markets.

6. Structure of the dissertation

In addition to the Introduction and Conclusion, the dissertation consists of five chapters:

Chapter 1: Literature Review

Chapter 2: Theoretical Framework

Chapter 3: Research Model and Methodology

Chapter 4: Results and Discussion

Chapter 5: Conclusion and Policy Implications

CHAPTER 1: LITERATURE REVIEW

1.1. Overview of financial statement audit quality

Financial statement audit quality has long been a central topic in accounting and auditing research, reflecting the multidimensional and complex nature of the audit function. Financial statement audit quality is not directly observable and is commonly assessed through indicators that capture auditor competence, independence, compliance with professional standards, and the outcomes of the audit process (DeAngelo, 1981; Francis, 2011; Knechel et al., 2013). Different stakeholder groups, including investors, firms, auditors, and regulators, often adopt different perspectives in assessing financial statement audit quality (Francis, 2004), resulting in considerable diversity in both its conceptualization and measurement.

Because financial statement audit quality cannot be directly observed, prior studies typically rely on indirect measures, commonly referred to as proxies, to capture this construct (DeFond & Zhang, 2014). Depending on the analytical perspective, audit quality measures can be classified in different ways. Drawing on the frameworks of Francis (2011) and Knechel et al. (2013), this study systematizes audit quality measures into two main groups: (i) measures reflecting the reputation and competence of the auditor or audit firm, representing input factors; and (ii) measures reflecting the audit process and the outcomes of audit activities, representing process and output factors.

This approach provides a clear analytical framework for synthesizing prior studies and establishes a basis for selecting and developing audit quality measures that are appropriate for the objectives of the present study.

1.1.1. FS Audit quality based on auditor reputation and competence (Input Factors)

First, audit quality is approached through observable characteristics of audit firms and audit engagements, reflecting resources, professional competence, and the expected level of audit effort during the audit process. According to DeFond & Zhang (2014), these input factors are often used by stakeholders as proxies for audit quality.

(1) FS audit quality based on audit firm size and reputation

(2) FS audit quality based on industry specialization

(3) FS audit quality based on audit fees

(4) FS audit quality based on auditor switching

1.1.2. FS audit quality based on process and output measures

According to DeFond and Zhang (2014), process- and output-based measures of audit quality commonly include financial statement restatements and Accounting and Auditing Enforcement Releases (AAERs), audit opinions-particularly going-concern opinions-earnings benchmark beating, discretionary accruals, and audit report lag. These measures are widely used in empirical research to capture observable outcomes or consequences of the audit process. Francis (2011) and Rajgopal et al. (2021) also provide extensive discussions of these measures in evaluating how financial statement audit quality is assessed in archival research.

(1) Financial statement restatements and Accounting and Auditing Enforcement Releases (AAERs)

(2) Informational signals from audit opinions

(3) Discretionary accruals and earnings benchmark behavior as measures of audit quality

(4) Audit quality associated with audit engagement conditions

1.1.3. FS audit quality from the perspective of creditors' risk assessment

In the context of examining the impact of financial statement audit quality on the cost of debt, the primary users of information are creditors, who are unable to directly observe audit quality and must therefore assess it through observable market signals. This approach is consistent with signaling theory, which posits that market participants rely on observable signals to evaluate information quality and risk (Spence, 1973). Accordingly, proxies for financial statement audit quality are relevant to creditors' decisions only when they can be observed, interpreted, and used as signals of the reliability of financial information.

Based on the above arguments, an important criterion for selecting proxies for financial statement audit quality in cost-of-debt research is not only their prevalence in prior studies but also their observability and their ability to be interpreted and used by creditors as signals in the credit risk assessment process.

1.2. FS audit quality and cost of debt in firms

1.2.1. The role of FS audit quality in reducing information asymmetry

In a market economy, information asymmetry between firms and capital providers is considered one of the core causes of information risk and agency costs (Diamond & Verrecchia, 1991; Jensen & Meckling, 1976). Financial statement auditing, as an independent assurance mechanism, is expected to help reduce information asymmetry by enhancing the reliability of disclosed financial information.

1.2.2. Foundational studies on FS audit quality and cost of capital

Most empirical evidence supports the view that high audit quality can reduce a firm's cost of capital. However, existing studies mainly focus on the cost of equity and use traditional audit quality measures such as audit firm size and reputation, audit fees, and audit opinion types. Meanwhile, evidence directly related to the cost of debt, from the perspective of creditors and lenders, remains relatively limited, creating an important research gap that needs further exploration.

1.2.3. Financial statement audit quality and cost of debt

Empirical studies on the impact of audit quality on the cost of debt have produced results that are not entirely consistent.

(1) Evidence showing that audit quality reduces the cost of debt

(2) Mixed and context-dependent evidence

(3) Audit quality measures and their impact on the cost of debt

(4) Evidence in Vietnam and research implications

(5) Theoretical foundations for control variables in the model

1.3. Research gap

1.4. Proposed research model

Based on the review of domestic and international studies, the author proposes a research model illustrating the impact of audit quality on the cost of debt.

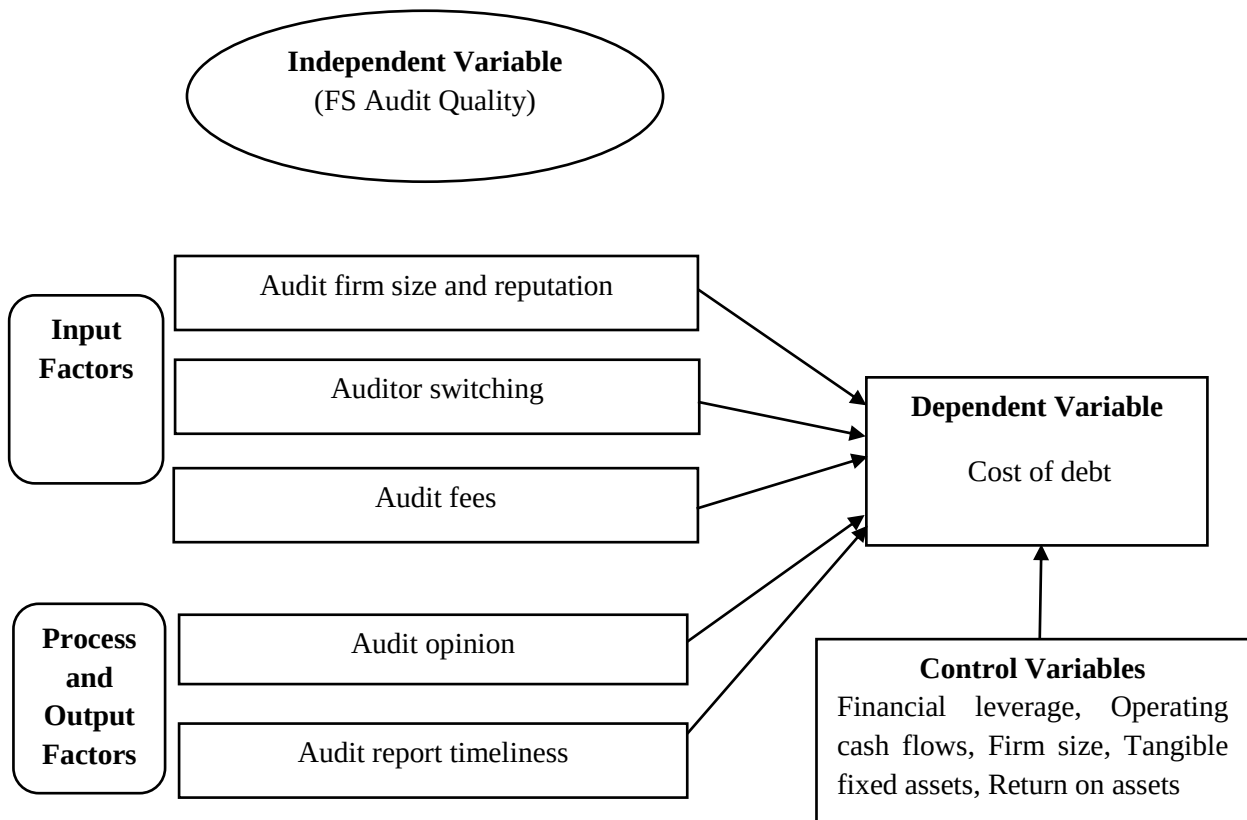


Figure 1.1: Proposed Research Model

(Source: Developed by the author)

CHAPTER 2: THEORETICAL BACKGROUND AND FOUNDATIONS ON THE IMPACT OF AUDIT QUALITY ON THE COST OF DEBT

2.1. Key concepts in the study

2.1.1. Financial statement audit quality

Audit quality is a central concept in accounting and auditing research; however, there is no single, universally accepted definition in the academic literature. Prior studies indicate that audit quality is perceived differently depending on the perspectives of various stakeholders, such as auditors, managers, investors, and regulators. Accordingly, audit quality is multidimensional and context-dependent (Knechel et al., 2013).

Among the most widely cited definitions, DeAngelo (1981) defines audit quality as “the joint probability that an auditor will both discover and report a breach in the client’s accounting system.” Subsequent studies have further developed and broadened this concept by emphasizing its multidimensional nature and suggesting that audit quality is influenced by multiple factors at different levels, including audit inputs, the audit process, and audit outcomes. Similarly, DeFond and Zhang (2014) emphasize that audit quality is closely associated with the auditor’s ability to provide reliable assurance regarding the quality of financial reporting. Despite differences in conceptual approaches, the literature generally agrees that audit quality is an abstract construct that cannot be directly observed or adequately measured using a single indicator.

2.1.2. Approaches and proxies for measuring audit quality

Measuring audit quality is one of the greatest challenges in accounting and auditing research due to the nature of auditing as a “credence good,” where service quality is difficult to observe directly even after consumption (Knechel et al., 2013).

Based on prior studies, there are three main theoretical frameworks used to approach the measurement of audit quality:

- ***An audit quality level-based approach***
- ***An Input–Process–Output value chain approach***
- ***A stakeholder perspective approach***

Based on the classification frameworks proposed by DeFond and Zhang (2014) and Knechel et al. (2013), the commonly used indicators in empirical research include:

- (1) Input-based indicators***
- (2) Process- and context-based indicators***
- (3) Output-based indicators***

2.1.3. Cost of capital of firms

2.1.4. Cost of debt of firms

In empirical studies examining the impact of financial statement audit quality on the cost of debt, the cost of debt is commonly measured as the ratio of interest expense to a firm’s interest-bearing debt. According to Van et al. (2022), the cost of debt is measured as follows:

$$CODit = \text{Interest rate/Short-term and long-term debt}$$

This measurement reflects the actual interest rate that firms pay on their debt, thereby capturing creditors’ perceptions of information risk and default risk (Pittman & Fortin, 2004).

Achek & Gallali (2015) and Bacha (2019) measure COD as the interest expense of firm i in year t divided by the total short-term and long-term debt at the beginning of year t for firm i . In the studies by El-Dyasty & Elamer (2022) and Thu et al. (2018), COD is defined as interest expense divided by total short-term and long-term debt. Other studies define COD as interest expense divided by average debt (Bacha et al., 2021; Coffie et al., 2018; Lai, 2011; Manoel et al., 2022; Orazalin & Akhmetzhanov, 2019; Persakis & Iatridis, 2015).

2.1.5. The relationship between audit quality and cost of debt

2.2. Theoretical foundations used in the study

The theoretical foundations underlying the study of the impact of audit quality on the cost of debt, as discussed in prior research, include the following theories:

2.2.1. Agency Theory

Specifically, high audit quality enhances the reliability of a firm's financial information, enabling creditors to more closely monitor managerial activities (shareholders) and ensure that debt covenants are complied with (Karjalainen, 2011). Causholli & Knechel (2012) point out that public listing requires firms to shift from direct monitoring by banks to monitoring by third parties (auditors). This helps to "separate" monitoring costs from interest rates, thereby reducing the actual cost of debt for firms.

2.2.2. Signaling Theory

Similarly, Houque et al. (2017) argue that voluntarily hiring reputable international audit firms helps strengthen investor confidence and reduce risk premiums arising from information uncertainty. Thus, audit quality is not only a control mechanism but also a strategic communication tool, enabling firms to access debt financing at more favorable costs by reducing market skepticism regarding financial capability and managerial integrity.

2.2.4. Asymmetric Information Theory

Information asymmetry theory is particularly valuable in explaining situations where information risk is at its highest. Lai (2011) shows that for all-equity firms accessing debt financing for the first time, information asymmetry is particularly severe because of the absence of a credit history. In such cases, financial statement audit quality becomes an important signal that creditors can use to assess the firm's financial condition. Similarly, Causholli and Knechel (2012) find that, for young technology firms whose assets are predominantly intangible and difficult to value, the role of financial statement audit quality in mitigating information asymmetry becomes especially pronounced, enabling these firms to obtain greater reductions in borrowing costs than more traditional firms.

CHAPTER 3: RESEARCH MODEL AND METHODOLOGY

3.1. Research process

The research process is illustrated by the author in the following figure:

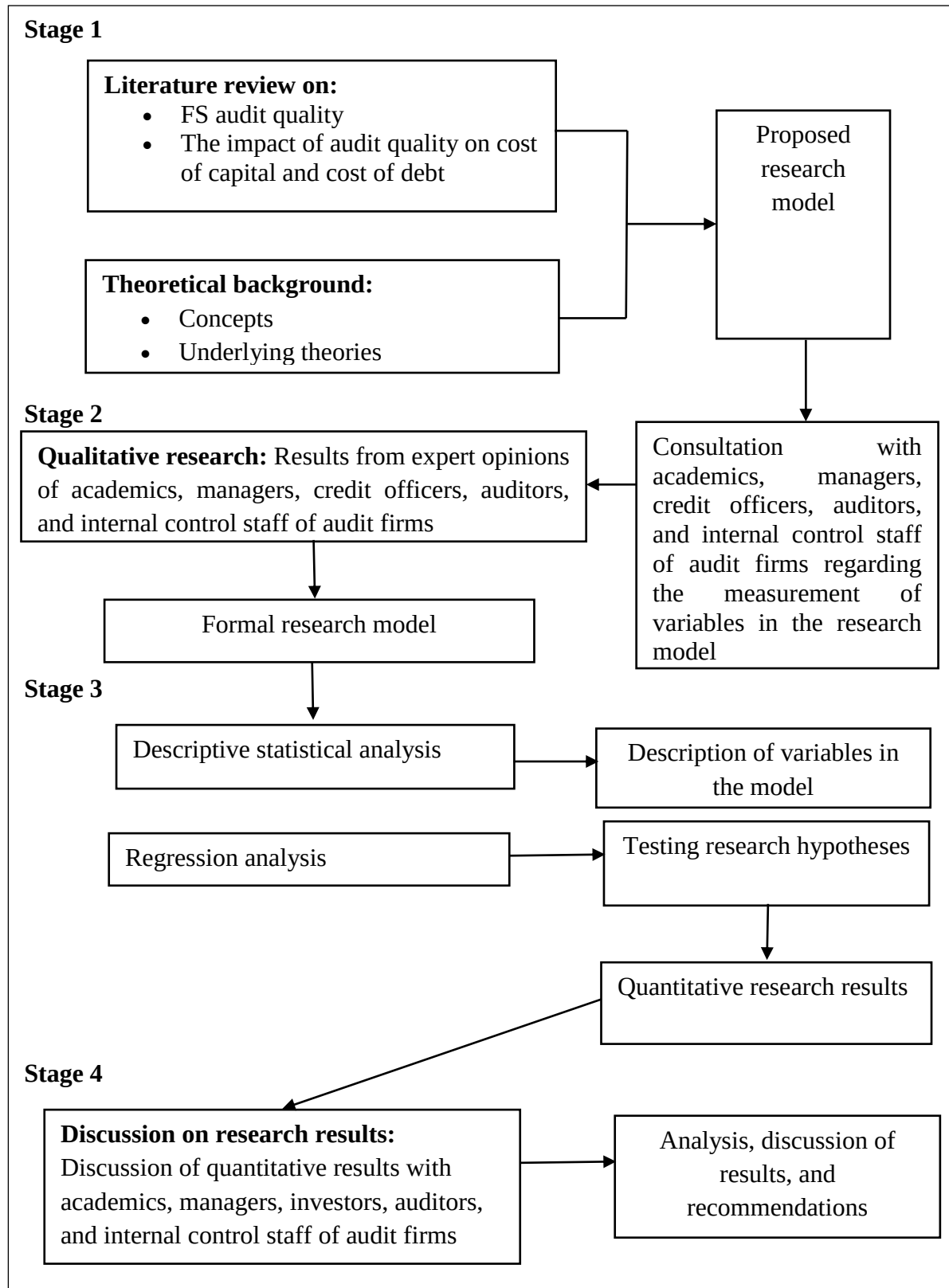


Figure 3.1: Research Process

3.2. Research design

Selection of a mixed-methods research approach.

3.3. Qualitative research

The qualitative research process is conducted to support the development and validation of the research model. The author conducts discussions with experts in auditing, research, and corporate finance to review and adjust the preliminary research model based on both theoretical and practical considerations.

The consultation questionnaire is designed with open-ended questions to identify additional variables or to better describe variables in line with practical conditions. After completing the quantitative research, further expert consultations are conducted to interpret the results, identify contextual factors, and validate the appropriateness of the statistical relationships.

3.4. Formal research model and research hypotheses

3.4.1. Formal Research Model

The author employs the following formal research model:

$$COD_{it} = \delta_0 + \delta_1 AQ + \delta_2 SIZE_{it} + \delta_3 CFO_{it} + \delta_4 LEV_{it} + \delta_5 ROA_{it} + \delta_6 PPE_{it} + \delta_7 UPCOM_{it} + \varepsilon_{it}$$

Where:

- **Dependent variables:** *COD* and *COD0* represent cost of debt and short-term cost of debt, respectively.
- **Independent variable (AQ – FS Audit Quality)** is measured by:
 - **BIG4:** Audit firm
 - **CHANGET:** Auditor switching
 - **QO:** Audit opinion
 - **TIME:** Audit report lag
 - **AUDITQUALITY:** Composite variable constructed from *BIG4*, *CHANGET*, *QO*, and *TIME*
- **Control variables include:**
 - **SIZE:** Firm size
 - **CFO:** Operating cash flow
 - **LEV:** Financial leverage
 - **ROA:** Return on assets
 - **PPE:** Tangible fixed assets
 - **UPCOM:** Trading exchange

Thus, the initial research model is specified into the following models:

Model 1:

$$COD_{it} = \beta_0 + \beta_1 BIG4 + \beta_2 CHANGET + \beta_3 QO + \beta_4 TIME + \delta_1 SIZE_{it} + \delta_2 CFO_{it} + \delta_3 LEV_{it} + \delta_4 ROA_{it} + \delta_5 PPE_{it} + \delta_6 UPCOM_{it} + \varepsilon_{it}$$

Model 2:

$$COD_{it} = \beta_0 + \beta_1 AUDITQUALITY + \delta_1 SIZE_{it} + \delta_2 CFO_{it} + \delta_3 LEV_{it} + \delta_4 ROA_{it} + \delta_5 PPE_{it} + \delta_6 UPCOM_{it} + \varepsilon_{it}$$

Model 3:

$$COD0_{it} = \beta_0 + \beta_1 BIG4 + \beta_2 CHANGET + \beta_3 QO + \beta_4 TIME + \delta_1 SIZE_{it} + \delta_2 CFO_{it} + \delta_3 LEV_{it} + \delta_4 ROA_{it} + \delta_5 PPE_{it} + \delta_6 UPCOM_{it} + \varepsilon_{it}$$

Model 4:

$$COD0_{it} = \beta_0 + \beta_1 AUDITQUALITY + \delta_1 SIZE_{it} + \delta_2 CFO_{it} + \delta_3 LEV_{it} + \delta_4 ROA_{it} + \delta_5 PPE_{it} + \delta_6 UPCOM_{it} + \varepsilon_{it}$$

3.4.2. Formal research hypotheses

3.4.2.1. The impact of FS audit quality measured by audit firm size and reputation on the cost of debt

Based on prior studies, the following hypothesis is proposed:

H1: *FS audit quality, as measured by audit firm size, has a negative impact on the cost of debt of non-financial firms listed on the Vietnamese stock market.*

3.4.2.2. The impact of FS audit quality measured by auditor switching on the cost of debt

The author proposes the following hypothesis:

H2: *FS audit quality, as measured by auditor switching, has a negative impact on the cost of debt of non-financial firms listed on the Vietnamese stock market.*

3.4.2.3. The impact of FS audit quality measured by unqualified audit opinion on the cost of debt

Accordingly, the following hypothesis is proposed:

H3: *FS audit quality, as measured by unqualified audit opinions, has a negative impact on the cost of debt of non-financial firms listed on the Vietnamese stock market.*

3.4.2.4. The impact of FS audit quality measured by audit report timeliness on the cost of debt

The following hypothesis is proposed:

***H4:** FS audit quality, as measured by audit report timeliness, has a negative impact on the cost of debt of non-financial firms listed on the Vietnamese stock market.*

3.5. Quantitative research

3.5.1. Quantitative research process

After completing the qualitative research in Phase 1, the author conducts quantitative research using secondary data and appropriate analytical techniques to quantify the impact of factors in the formal research model.

3.5.5. Quantitative analysis

3.5.5.1. Descriptive statistics

3.5.5.2. Correlation analysis

3.5.5.3. Regression method

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION

4.1. Descriptive statistics

4.1.1. Sample statistics

4.1.2. Descriptive statistics of FS audit quality variables by dimensions and the dependent variable

Descriptive statistics of audit quality variables by dimensions

Descriptive statistics of control variables

Descriptive statistics of the dependent variable

4.2. Results of difference tests

4.2.1. Results of difference tests in cost of debt by year

4.2.2. Results of difference tests in cost of debt by stock exchange

4.3. Correlation analysis results

Table 4.10: Correlation Results Among Variables

Variables	COD	COD0	BIG4	CHANGET	QO	TIME	AUDIT QUALITY	SIZE	CFO	LEV	ROA	PPE
COD	1.0000											
COD0	0.4075*	1.0000										
BIG4	-0.0538*	-0.1175*	1.0000									
CHANGET	0.0088	-0.0459*	0.0460*	1.0000								
QO	0.0031	-0.0955*	0.1689*	0.0540*	1.0000							
TIME	0.0092	-0.0313*	0.0419*	0.1494*	0.0660*	1.0000						
AUDITQUALITY	-0.0188	-0.1356*	0.6201*	0.5836*	0.5963*	0.4170*	1.0000					
SIZE	0.0681*	-0.1807*	0.4209*	0.0260	0.0862*	-0.0624*	0.2479*	1.0000				
CFO	-0.0423*	-0.0097	-0.0082	0.0038	0.0391*	0.0058	0.0176	0.0538*	1.0000			
LEV	0.0473*	0.1025*	-0.0862*	0.0305*	-0.2097*	-0.0424*	-0.1386*	-0.1046*	-0.0459*	1.0000		
ROA	-0.1061*	-0.1059*	0.1286*	0.0223	0.2003*	0.0891*	0.1952*	0.1700*	-0.1239*	-0.5573*	1.0000	
PPE	0.3467*	0.0828*	0.0423*	0.0309*	-0.0131	0.1125*	0.0634*	-0.0013	-0.1023*	-0.0335	0.0234	1.0000
UPCOM	-0.0079	0.0765*	-0.2365*	-0.0219	-0.2938*	-0.0638*	-0.2858*	-0.3279*	-0.0391*	0.1241*	-0.1183*	0.1502*

(Source: Data analysis results using Stata 17.0)

4.4. Regression analysis results

The formal research model of the dissertation is specified as follows:

$$COD_{it} = \beta_0 + \beta_{1k}AQ_{it} + u_{it}$$

The author employs Pooled OLS, FEM, and REM regression methods to identify the most appropriate model. In cases where model defects are detected, the GLS regression method is applied to address these issues.

4.4.1. Regression analysis of model 1 with COD as the dependent variable and individual FS audit quality measures

Table 4.12: Regression Results of Model 1 with COD as the Dependent Variable and Independent Variables BIG4, CHANGET, QO, and TIME

Variables	VIF	OLS	FEM	REM	GLS
BIG4	1.28	-0.00491*** [-5.04]	-0.00304** [-2.49]	-0.00491*** [-5.04]	-0.00617*** [-8.33]
CHANGET	1.03	-0.000727 [-1.45]	-0.00084 [-1.63]	-0.000727 [-1.45]	0.000124 [0.18]
QO	1.16	0.000237 [0.59]	0.000051 [0.07]	0.000237 [0.59]	0.00160** [2.06]
TIME	1.07	-0.00192* [-1.89]	-0.00184* [-1.77]	-0.00192* [-1.89]	-0.00112 [-0.95]
SIZE	1.37	0.00194*** [6.43]	0.00236*** [3.75]	0.00194*** [6.43]	0.00166*** [8.01]
CFO	1.06	-0.000956 [-1.38]	-0.000681 [-0.95]	-0.000956 [-1.38]	-0.00264** [-0.49]
LEV	1.51	0.000037 [-0.08]	-0.00143 [-1.31]	0.000037 [-0.08]	-0.000121 [-0.22]
ROA	1.59	-0.00941*** [-4.27]	-0.00664*** [-2.88]	-0.00941*** [-4.27]	-0.0240*** [-8.44]
PPE	1.22	0.0403*** [22.66]	0.0477*** [19.57]	0.0403*** [22.66]	0.0334*** [27.00]
UPCOM	1.28	-0.00245** [2.06]	0 [.]	-0.00245** [2.06]	-0.00259*** [4.13]
_cons		-0.0282*** [-2.95]	-0.0427** [-2.45]	-0.0282*** [-2.95]	-0.0203*** [-3.37]
Số quan sát (N)		4960	4960	4960	4960
R-squared (R ²)		0.1471	0.1330		
Kiểm định F (FEM)			F(9,3948) =46,98 Prob > F = 0.0000		
Kiểm định Wald (OLS/REM)		Wald chi2 (10) = 596.83 Prob > chi2 = 0.0000		Wald chi2 (10) = 596.83 Prob > chi2 = 0.0000	Wald chi2(10) = 922.84 Prob > chi2 = 0.0000
Kiểm định			Chi2(9) =		

Hausman			50.24 Prob > chi2 = 0.0000		
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t statistics in brackets *p<0.1, **p<0.05, ***p<0.01

(Source: Author's compilation and data analysis using Stata 17.0)

4.4.2. Regression analysis of model 2 with COD as the dependent variable and the composite FS audit quality measure

Table 4.13: Regression Results of Model 2 with COD as the Dependent Variable and the Composite Audit Quality Variable (AUDITQUALITY)

Variables	VIF	OLS1	FEM1	REM1	GLS1
AUDITQUALITY	1.16	-0.00469***	-0.00377***	-0.00469***	-0.00573***
		[-3.53]	[-2.62]	[-3.53]	[-3.96]
SIZE	1.18	0.00164***	0.00227***	0.00164***	0.00115***
		[4.93]	[3.61]	[4.93]	[5.92]
CFO	1.06	-0.000855	-0.00064	-0.000855	-0.00224**
		[-1.22]	[-0.89]	[-1.22]	[-2.11]
LEV	1.49	-0.0000219	-0.00147	-0.0000219	-0.000231
		[-0.03]	[-1.35]	[-0.03]	[-0.42]
ROA	1.58	-0.00939***	-0.00669***	-0.00939***	-0.0232***
		[-4.24]	[-2.90]	[-4.24]	[-8.14]
PPE	1.20	0.0401***	0.0477***	0.0401***	0.0332***
		[22.60]	[19.56]	[22.60]	[26.81]
UPCOM	1.23	-0.00236**	0	-0.00236**	-0.00284***
		[-1.97]	[.]	[-1.97]	[-4.58]
_cons		-0.0199**	-0.0406**	-0.0199**	-0.00318
		[-2.14]	[-2.34]	[-2.14]	[-0.59]
Số quan sát (N)		4960	4960	4960	4960
R-squared (R ²)		0.1387	0.1281		
Kiểm định F (FEM)			F(6,3951) = 69.53 Prob > F = 0.0000		
Kiểm định Wald (OLS/REM)		Wald chi2 (7) = 574.00 Prob > chi2 = 0.0000		Wald chi2 (7) = 574.00 Prob > chi2 = 0.0000	Wald chi2(7) = 856.38 Prob > chi2 = 0.0000
Kiểm định Hausman			Chi2(6) = 40.85 Prob > chi2 = 0.0000		

t statistics in brackets p < 0.1, ** p < 0.05, *** p < 0.01

(Source: Author's compilation and data analysis using Stata 17.0)

Based on the regression results of Model 1 and Model 2, the author summarizes the impact of audit quality on the cost of debt as measured by individual proxies (BIG4,

CHANGET, QO, TIME) and the composite audit quality measure (AUDITQUALITY) in Table 4.14 as follows:

Table 4.14: Summary of the Impact of Financial Statement Audit Quality on the Cost of Debt

Independent Variable	Dependent Variable	Model	Regression Result (Coefficient)	Conclusion
BIG4	COD	GLS	-0.00617***	Negative effect, significant at 1% level
CHANGET	COD	GLS	0.000124	Not statistically significant
QO	COD	GLS	0.00160**	Positive effect, significant at 5% level
TIME	COD	GLS	-0.00112	Not statistically significant
AUDITQUALITY	COD	GLS	-0.00573***	Negative effect, significant at 1% level

(Source: Author's compilation and analysis)

4.4.3. Regression analysis of model 3 with COD0 as the dependent variable and individual audit quality measures

Table 4.15: Regression Results of Model 3 with COD0 as the Dependent Variable and Audit Quality Measures BIG4, CHANGET, QO, and TIME

Variables	(1) OLS2	(2) FEM2	(3) REM2	(4) GLS2
BIG4	-0.00440* [-1.79]	-0.00369 [-1.00]	-0.00440* [-1.79]	-0.00416** [-2.54]
CHANGET	-0.00404*** [-2.78]	-0.00434*** [-2.79]	-0.00404*** [-2.78]	-0.00392** [-2.57]
QO	-0.00345* [-1.81]	-0.000959 [-0.43]	-0.00345* [-1.81]	-0.00698*** [-4.07]
TIME	-0.00670** [-2.45]	-0.00462 [-1.47]	-0.00670** [-2.45]	-0.00702*** [-2.68]
SIZE	-0.00527*** [-6.86]	-0.00973*** [-5.11]	-0.00527*** [-6.86]	-0.00456*** [-9.96]
CFO	0.00387* [1.87]	0.00578*** [2.67]	0.00387* [1.87]	0.00155 [0.66]
LEV	0.00197 [1.12]	-0.0116*** [-3.53]	0.00197 [1.12]	0.00437*** [3.52]
ROA	0.00262 [0.41]	0.00930 [1.34]	0.00262 [0.41]	-0.0103 [-1.63]
PPE	0.0280*** [6.54]	0.0506*** [6.88]	0.0280*** [6.54]	0.0187*** [6.85]
UPCOM	-0.00191 [-0.76]	0 [.]	-0.00191 [-0.76]	-0.00280** [-2.02]

Variables	(1) OLS2	(2) FEM2	(3) REM2	(4) GLS2
_cons	0.220***	0.340***	0.220***	0.205***
	[10.13]	[6.46]	[10.13]	[15.34]
Số quan sát (N)	4960	4960	4960	4960
R-squared (R ²)	0.0497	0.0238		
Kiểm định F (FEM)		F(9,3948) = 11.36 Prob > F = 0.0000		
Kiểm định Wald (OLS/REM)	Wald chi2(10) = 129.02 Prob > chi2 = 0.0000		Wald chi2(10) = 129.02 Prob > chi2 = 0.0000	Wald chi2(10) = 299.52 Prob > chi2 = 0.0000
Kiểm định Hausman		Chi2(9) = 54.52 Prob > chi2 = 0.0000		

t statistics in brackets p < 0.1, ** p < 0.05, *** p < 0.01

(Source: Author's compilation and data analysis using Stata 17.0)

4.4.4. Regression analysis of model 4 with COD0 as the dependent variable and the composite audit quality measure

Table 4.16: Regression Results of Model 2 with COD as the Dependent Variable and the Composite Audit Quality Variable (AUDITQUALITY)

Variables	VIF	OLS3	FEM3	REM3	GLS3
AUDITQUALITY	1.17	-0.0173***	-0.0138***	-0.0173***	-0.0208***
		[-4.69]	[-3.18]	[-4.69]	[-6.52]
SIZE	1.20	-	-0.00982***	-	-0.00440***
		0.00525***		0.00525***	
		[-7.14]	[-5.17]	[-7.14]	[-10.32]
CFO	1.05	0.00388*	0.00588***	0.00388*	0.00138
		[1.87]	[2.72]	[1.87]	[0.59]
LEV	1.49	0.00191	-0.0118***	0.00191	0.00452***
		[1.09]	[-3.59]	[1.09]	[3.76]
ROA	1.56	0.00247	0.00921	0.00247	-0.0109*
		[0.39]	[1.32]	[0.39]	[-1.74]
PPE	1.06	0.0278***	0.0504***	0.0278***	0.0186***
		[6.50]	[6.85]	[6.50]	[6.83]
UPCOM	1.23	-0.00196	0	-0.00196	-0.00244*
		[-0.79]	[.]	[-0.79]	[-1.79]
_cons		0.219***	0.342***	0.219***	0.198***
		[10.64]	[6.52]	[10.64]	[16.73]
Số quan sát (N)		4960	4960	4960	4960
R-squared (R ²)		0.0498			
Kiểm định F (FEM)			F(6,3951) = 16.76 Prob>F=0.0000		

Kiểm định Wald (OLS/REM)	Wald chi2(7) = 128.00 Prob>chi2= 0.0000	Wald chi2(7) = 128.00 Prob>chi2= 0.0000	Wald chi2(7) = 297.04 Prob>chi2= 0.0000
Kiểm định Hausman	Chi2(6) = 52.46 Prob>chi2= 0.0000		

t statistics in brackets p < 0.1, ** p < 0.05, *** p < 0.01

(Source: Author's compilation and data analysis using Stata 17.0)

Based on the regression results of Model 3 and Model 4, the author summarizes the impact of audit quality on interest-bearing cost of debt, measured using individual proxies (BIG4, CHANGET, QO, TIME) as well as the composite audit quality measure (AUDITQUALITY), as presented in Table 4.17 as follows:

Table 4.17: Summary of the impact of financial statement audit quality on interest-bearing cost of debt

Independent variables	Dependent variable	Model	Regression results (coefficients)	Conclusion
BIG4	COD0	GLS	−0.00389**	Negative effect, significant at the 5% level
CHANGET	COD0	GLS	−0.00395***	Negative effect, significant at the 1% level
QO	COD0	GLS	−0.00610***	Negative effect, significant at the 1% level
TIME	COD0	GLS	−0.00656**	Negative effect, significant at the 5% level
AUDITQUALITY	COD0	GLS	−0.0208***	Negative effect, significant at the 1% level

(Source: Author's compilation and analysis)

4.5. Robustness tests of the model

4.5.1. Robustness test using Principal Component Analysis (PCA)

4.5.2. Regression results by industry

4.5.3. Regression results before and after COVID-19

4.5.4. Supplementary testing using PSM and lagged variables

4.6. Discussion of research findings

4.6.1. Analysis of the impact of FS audit quality, measured by audit firm size, on cost of debt

4.6.2. Analysis of the impact of FS audit quality, measured by auditor switching, on cost of debt

4.6.3. Analysis of the impact of FS audit quality, measured by audit opinion, on cost of debt

4.6.4. Analysis of the impact of FS audit quality, measured by audit report timeliness, on cost of debt

4.6.5. Analysis of the impact of overall audit quality on cost of debt

4.6.6. Overall discussion

CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

5.1. Conclusion

5.2. Implications derived from the study

5.2.1. *For listed firms in the stock market*

5.2.2. *For other stakeholders*

5.2.2.1. For government authorities

5.2.2.2. For investors

5.3. Contributions of the dissertation

This dissertation makes significant contributions to the fields of auditing, accounting, and corporate finance, both theoretically and practically, as follows:

Theoretical contributions

The dissertation proposes a composite measure of financial statement audit quality using PCA, combining BIG4, CHANGET, QO, and TIME; provides new evidence on the impact of financial statement audit quality on the cost of debt and its differences between the pre- and post-COVID-19 periods in the Vietnamese context; and integrates a mixed-methods approach with multiple robustness checks, including industry-level analysis, PSM, and lagged variables, to enhance the reliability of the research findings.

Practical contributions

The research findings provide important empirical evidence for corporate managers, credit institutions, investors, and government regulators in assessing the role of independent auditing in reducing the cost of debt financing.

5.4. Research limitations and future research directions

5.4.1. *Research limitations*

5.4.2. *Future research directions*

CONCLUSION

The dissertation entitled “*The Impact of Financial Statement Audit Quality on the Cost of Debt of Non-Financial Firms Listed on the Vietnamese Stock Market*” aims to clarify the role of independent auditing in reducing information risk and firms’ borrowing costs. Drawing on signaling theory and information asymmetry theory, the study employs a mixed-methods approach to examine the impact of financial statement audit quality on the cost of debt.

The findings indicate that financial statement audit quality has a negative and highly statistically significant effect on the cost of debt, suggesting that firms with more transparent financial statements, audited by reputable audit firms and issued in a timely manner, tend to benefit from lower borrowing costs. This finding confirms the important role of auditing in strengthening creditors’ confidence and reducing the cost of debt financing. However, the magnitude of this effect remains relatively limited, indicating that the cost of debt is also strongly influenced by other factors, such as firm size, collateral, and industry risk. The study provides additional empirical evidence supporting information asymmetry theory in the Vietnamese context and suggests a more comprehensive approach to measuring financial statement audit quality. From a practical perspective, the findings offer implications for firms, regulatory authorities, and relevant institutions.

Academically, the dissertation contributes to the literature by emphasizing the role of improved financial statement audit quality in enhancing financial information transparency and by highlighting the potential integration of audit quality into credit assessment systems.

LIST OF PUBLICATIONS RELATED TO THE DISSERTATION

- [1] Tran Thuy Linh, Dang Ngoc Hung, Hoang Thi Viet Ha, “A Review of Audit Quality Measurement Using a Bibliometric Analysis Approach,” *Journal of Science and Technology, Hanoi University of Industry*, Vol. 61, No. 10, October 2025, pp. 107–115.
- [2] Tran Thuy Linh, “A Meta-Analytical Study on the Impact of Audit Quality on the Cost of Capital,” *Journal of Economics, Law and Banking*, No. 284, November 2025, pp. 81–94.
- [3] Tran Thuy Linh, Dang Ngoc Hung, Hoang Thi Viet Ha, “A Review of Research on the Impact of Audit Quality on the Cost of Capital,” *Journal of Economics and Finance*, No. 06, Issue 3, November 2025, pp. 234–239.
- [4] Tran Thuy Linh, Dang Ngoc Hung, Hoang Thi Viet Ha, “A Multidimensional Assessment of Audit Quality and Its Impact on the Cost of Debt: Evidence from an Emerging Market,” *International Journal of Analysis and Applications*, 24 (2026), 150.
<https://doi.org/10.28924/2291-8639-24-2026-150>