ORIGINAL PAPER

DOI: 10.26794/2587-5671-2026-30-3-64-80
JEL G32, H35, M40

The Impact of Earnings Management and Tax Avoidance on the Cost of Debt in Vietnamese Listed Firms

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ABSTRACT

In the context of Vietnam, as an emerging economy characterized by limited financial transparency, this study aims to clarify how the credit market responds to financial management behaviors. It also examines the roles of audit quality and listing status in this relationship. The topic holds both practical and academic significance, particularly in shaping policies related to credit risk control and enhancing financial market discipline. This paper investigates the impact of earnings management and corporate income tax avoidance on the cost of debt among firms listed on the Vietnamese stock exchange during the period from 2016 to 2024. A quantitative research approach is employed using panel data regression models with firm and year fixed effects. The primary independent variables include proxies for earnings management and tax avoidance, while the dependent variable is the cost of debt. Control variables such as profitability, firm size, financial leverage, and foreign ownership are also included to ensure robustness. Further analysis is conducted by dividing the sample based on audit firm type (Big4 vs. non-Big4) and listing status (listed vs. unlisted) to investigate the heterogeneity in audit quality and market visibility. The findings indicate that earnings management has a statistically significant negative impact on the cost of debt, particularly among firms audited by Big4 and listed companies. In contrast, the effect of tax avoidance on the cost of debt is positive but relatively weak and inconsistent across groups. These results underscore the crucial role of audit quality and financial transparency in shaping credit risk responses in emerging markets.

Keywords: audit quality; the cost of debt; tax avoidance; earnings management; information asymmetry; Viet Nam; moderating role; capital structure theory

For citation: **Dang N.H. The impact of earnings management and tax avoidance on the cost of debt in Vietnamese listed firms. *Finance: Theory and Practice.* 2026;30(3):64-80. DOI: 10.26794/2587-5671-2026-30-3-64-80**

ОРИГИНАЛЬНАЯ СТАТЬЯ

Влияние управления прибылью и уклонения от уплаты налогов на стоимость заемного капитала во вьетнамских компаниях, акции которых котируются на бирже

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АННОТАЦИЯ

Цель исследования — определить, как кредитный рынок реагирует на методы финансового управления, какую роль при этом играет качество аудита и листинга во Вьетнаме — стране с развивающейся экономикой, характеризующейся ограниченной финансовой прозрачностью. Исследуется влияние манипулирования отчетностью и уклонения от уплаты корпоративного подоходного налога на стоимость заемного капитала компаний, зарегистрированных на Вьетнамской фондовой бирже, в период 2016–2024 гг. Использован количественный подход с применением регрессионных моделей панельных данных с фиксированными эффектами для компаний и периодов. К основным независимым переменным относятся показатели манипулирования отчетностью и уклонения от уплаты налогов, а к зависимой переменной — стоимость заемного капитала. Для обеспечения надежности результатов также включены контрольные переменные, такие как рентабельность, размер компании, финансовый рычаг и доля иностранного капитала. Для дальнейшего анализа выборку разделили на две части в зависимости от типа аудиторской фирмы (Big4 или не Big4) и статуса листинга (листинг на бирже или вне биржи), чтобы изучить различия в качестве аудита и прозрачности для рынка. Сделан **вывод**, что манипулирование отчетностью оказывает статистически значимое негативное влияние на стоимость заемного капитала, особенно для компаний, которые проходят аудит у Big4, и компаний, акции которых котируются на бирже. В то же время влияние уклонения от уплаты налогов на стоимость заемного капитала положительное, но относительно слабое и непоследовательное в разных группах. Это подчеркивает

важнейшую роль качества аудита и финансовой прозрачности в формировании мер реагирования на кредитные риски на развивающихся рынках. Результаты исследования имеют как практическое, так и теоретическое значение, особенно в контексте формирования политики, связанной с контролем кредитного риска и повышением дисциплины на финансовом рынке.

Ключевые слова: качество аудита; стоимость заемного капитала; уклонение от уплаты налогов; манипулирование отчетностью; информационная асимметрия; Вьетнам; сдерживающая роль; теория структуры капитала

Для цитирования: **Dang N.H. The impact of earnings management and tax avoidance on the cost of debt in Vietnamese listed firms. *Финансы: теория и практика*. 2026;30(3):64-80. DOI: 10.26794/2587-5671-2026-30-3-64-80**

INTRODUCTION

In the context of Vietnam's increasingly deep integration into the global financial system, access to debt capital has become a critical factor for firms to maintain and expand their business operations. The cost of debt, defined as the interest rate or financial expenses incurred when borrowing, reflects creditors' trust in a firm's financial information and debt repayment capacity. Consequently, factors affecting the cost of debt are of primary concern to financial managers, investors, and policymakers.

In corporate accounting and finance, earnings management (EM) and income tax avoidance are two common financial behaviors that may distort the quality of financial reporting. EM refers to the adjustment of accounting items to achieve specific profit targets, often with the intent of signaling performance or fulfilling financial covenants [1–3]. Meanwhile, income tax avoidance involves the use of legal or potentially risky strategies to minimize a firm's actual tax liabilities [4].

Although EM and tax avoidance may generate short-term benefits for firms, both behaviors can exacerbate information asymmetry between firms and external stakeholders such as investors, regulators, and particularly creditors. In credit assessment, creditors rely heavily on financial statements to evaluate a firm's risk profile and repayment ability. As such, financial information distorted by EM or tax avoidance practices may prompt creditors to demand higher interest rates as compensation for the increased information risk [5].

In developed economies, the relationships among earnings management, tax avoidance, and the cost of debt have been extensively studied. For instance, [6] found that firms engaging in aggressive tax avoidance strategies tend to face higher borrowing costs due to perceived legal risks. Similarly, (Bharath et al., 2008) [7] demonstrated that financial reporting quality often affected by EM, has a significant impact on firms' cost of debt. Recent studies have also begun to explore the interaction between EM and tax avoidance and the moderating effects of oversight mechanisms such as auditing, ownership structure, and the legal environment [8].

The quality of tax enforcement by the government plays a critical role in curbing corporate tax avoidance. When the tax administration system operates effectively, with transparency and the ability to promptly detect and penalize violations, both the motivation and opportunity for firms to engage in tax avoidance are significantly constrained. Conversely, weaknesses in oversight, a lack of transparency in audit procedures, or limited professional capacity may increase the risk of tax avoidance especially as firms increasingly adopt sophisticated accounting techniques to minimize tax liabilities. Therefore, the quality of tax control not only directly influences corporate tax compliance behavior but also serves as a fundamental factor in ensuring fiscal equity and maintaining market discipline. Within the scope of this study, tax avoidance is defined as the use of legal strategies by firms to exploit loopholes in the tax system in order to reduce their tax liabilities, as opposed to tax evasion, which involves illegal practices. The research does not focus on firms that have been detected and penalized for tax evasion. Rather, it analyzes the factors that drive or constrain tax avoidance within the boundaries of existing legal frameworks. This approach allows for a clearer understanding of the motivations behind this behavior and its economic implications for corporate debt costs and managerial decision-making.

However, in Vietnam, the institutional setting and corporate monitoring environment differ substantially from those in developed markets. The legal frameworks related to accounting, taxation, and auditing are still in the process of being refined. Information disclosure is relatively opaque, institutional investor participation is limited, and market monitoring mechanisms are underdeveloped. These characteristics may allow EM and tax avoidance practices to occur more frequently and be harder to detect, thereby exerting a more complex influence on the cost of debt. Weak legal enforcement and low financial transparency are likely to amplify the adverse effects of tax avoidance on borrowing costs [9].

The novelty and primary contribution of this study lie in its analysis of the simultaneous effects of EM and corporate income tax avoidance on the cost of debt within the distinctive context of Vietnam. Unlike previous studies that typically examine each behavior in isolation, this research investigates the interaction between these two financial behaviors and the role of monitoring mechanisms, specifically audit quality and listing status. This approach aims to provide a more comprehensive understanding of how manipulated financial information influences creditors' lending decisions.

A key innovation in this study is the analysis of how audit quality and listing status moderate the relationship among EM, tax avoidance, and the cost of debt. While prior literature has separately examined the impact of audit quality or market status on cost of capital [5], few studies have incorporated both factors into a unified analytical framework especially in emerging markets such as Vietnam. Firms that are audited by Big 4 auditors typically receive higher-quality audit services due to their expertise, global standards, and greater independence compared to domestic audit firms [10]. Consequently, Big 4 auditors are more capable of detecting and constraining excessive EM and tax avoidance, thereby enhancing the reliability of financial reports and reducing the cost of debt [5]. This study divides its sample into two groups, Big 4 firms and non-Big 4 firms to investigate whether the quality of the audit mitigates the negative relationship between financial transparency and borrowing costs.

Second, the study extends its analysis by separating the sample into listed and unlisted firms. Listed firms are subject to stricter disclosure requirements and greater regulatory and investor scrutiny, which can help constrain EM and tax avoidance behaviors [11]. In contrast, unlisted firms may face less pressure to maintain transparency and be more prone to short-term managerial incentives, thereby increasing credit risk and borrowing costs.

The combination of these two dimensions creates a unique analytical framework capable of shedding light on the complex interplay between financial behavior, audit quality, and firm-level institutional characteristics. This is particularly relevant to emerging economies such as Vietnam, where market monitoring mechanisms are still evolving [12]. Therefore, this study contributes not only to the theoretical literature on emerging markets and the cost of capital, but also provides important policy implications for improving audit quality and information transparency in order to enhance the corporate financial environment.

THEORETICAL FRAMEWORK

Asymmetric Information Theory

Asymmetric information theory posits that in financial transactions, internal decision-makers such as corporate managers often have superior information regarding the firm's operations compared to investors or lenders [13]. Within this context, EM and tax avoidance can be viewed as mechanisms to obscure the true state of corporate affairs, thereby exacerbating information asymmetry. When creditors are unable to fully assess the reliability of financial statements, they tend to perceive a higher risk and consequently demand a risk premium in the form of higher interest rates [1]. EM is therefore considered a factor contributing to increased debt costs. Similarly, tax avoidance, particularly under conditions of low financial transparency can elevate the perceived risk of legal non-compliance and latent tax obligations, thus raising borrowing costs [4]. S. Lee [8] applied the asymmetric information theory to demonstrate that tax avoidance behavior leads to higher debt costs in environments characterized by opaque financial reporting. Likewise, (Francis et al., 2005) [5] showed that EM reduces the credibility of financial information, increasing lenders' risk and thereby the cost of debt.

Agency Theory

Agency theory, proposed by (Jensen & Meckling, 1976) [14], highlights conflicts of interest among stakeholders within a firm, particularly between shareholders and managers, as well as between shareholders and creditors. EM and tax avoidance may be interpreted as manifestations of such conflicts, where managers seek to maximize their personal utility at the expense of other stakeholders' long-term interests. From a debt cost perspective, agency-driven behavior, such as EM, raises concerns among creditors regarding the transparency and objectives of management, which in turn results in higher interest rate demands. Tax avoidance can also be regarded as an agency issue, especially when complex tax strategies are employed without adequate disclosure, thereby increasing creditors' monitoring costs and legal risks. (Hanlon & Heitzman, 2010) [4] argued that tax avoidance embodies potential conflicts between managers and creditors, which may result in lender losses. (Liu & Lu, 2007) [15] applied agency theory to Chinese firms and found that high levels of EM are associated with increased borrowing costs due to elevated moral hazard.

Signaling Theory

Signaling theory (Spence, 1973) [16], posits that under conditions of incomplete information, firms may emit signals to convey their financial strength and operational performance. However, when such signals are distorted by opaque financial practices such as EM or tax avoidance, their effectiveness may be weakened or even counterproductive. For instance, aggressive tax avoidance strategies may be perceived by lenders as negative signals indicating poor risk management and a lack of transparency. Similarly, "window-dressing" financial statements through EM may trigger skepticism about the sustainability of reported performance, thereby increasing the cost of debt. (Orazalin & Akhmetzhanov, 2019) [17] employed signaling theory to analyze the mitigating role of high-quality audits on the adverse effects of EM on borrowing costs. Their findings suggest that firms audited by the Big Four firms are better able to issue credible signals of transparency, thereby reducing the negative impact of EM on the cost of debt.

The three theories collectively provide a robust foundation for examining the relationship between EM, tax avoidance, and the cost of debt. Asymmetric information theory underscores the importance of financial information quality in assessing credit risk. Agency theory offers insights into the behavioral motivations underlying EM and its implications for lenders. Signaling theory highlights the role of mediating mechanisms such as auditing in conveying transparent information to the market. The integration of these theories creates a comprehensive and nuanced analytical framework, which not only clarifies causal mechanisms but also supports the development of empirical models.

Capital Structure Theory: Past, Present, Future

The study by (Brusov & Filatova, 2023) [18] a comprehensive reassessment of capital structure theory by incorporating time value and non-static conditions into firm valuation models. Their dynamic trade-off framework extends traditional capital structure theories by emphasizing how financing decisions, including tax-related strategies, impact the cost of capital over time. This perspective is highly relevant to the current research, as it highlights the interplay between earnings management, tax avoidance, and the cost of debt under evolving financial conditions. By integrating dynamic capital structure insights, the study enriches the theoretical foundation for analyzing how tax-related behaviors influence firms' debt financing costs.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

The Impact of Earnings Management on the Cost of Debt

When a company engages in EM, particularly practices that inflate reported earnings or smooth earnings volatility, it exacerbates information asymmetry between corporate managers and potential creditors [17, 19]. Financial statements become less transparent and less reflective of the firm's actual performance and financial health [20]. This lack of clarity increases the information risk faced by creditors (Sánchez-Ballesta & Yagüe, 2023) [21], meaning a heightened risk of making lending decisions based on incomplete or misleading information. Moreover, EM may also be perceived as a form of managerial opportunism arising from the separation of ownership and control [12, 22]. Managers may use EM to pursue personal objectives such as bonuses, job security, or avoiding covenant violations [17, 19]. Such behavior increases agency costs, as it signals that managers may not act in the best interests of creditors [22].

Due to increased information asymmetry, information risk, and agency costs, creditors perceive a greater risk of default or inadequate loan recovery [21]. To compensate for this heightened risk, lenders demand higher yields on their loans. These higher yields translate into an increased cost of debt for the firm, as reflected in interest rates or credit spreads [23–25]. Empirical studies provide support for this positive relationship. For instance, research on mining firms in Indonesia finds that accrual-based EM has a significantly positive impact on the cost of debt [19]. This aligns with the argument that creditors require higher interest rates when earnings quality is diminished by EM.

***H1**: Earnings management has a positive effect on the cost of debt.*

The Impact of Tax Avoidance on the Cost of Debt

Tax avoidance is generally seen as a cost-optimization strategy, but it carries significant risks. According to (Hanlon & Heitzman, 2010) [4], high levels of tax avoidance may raise concerns about corporate transparency and introduce legal risks if the strategies employed are noncompliant with existing tax regulations. (Dyreng et al., 2008) [9] suggest that long-term tax avoidance can result in higher debt costs if lenders perceive heightened compliance risk. The relationship between tax avoidance and cost of debt can be explained by two opposing channels.

The Tax Saving Effect and Debt Substitution

Tax avoidance reduces a firm's tax liabilities, thereby increasing post-tax cash flows [12, 21, 26]. These increased cash flows may be used to fund operations without external debt or to improve repayment capacity [27]. Firms with better repayment ability are perceived as less likely to default by creditors, leading to lower required interest rates and thus a reduced cost of debt [21]. Empirical evidence supporting this inverse relationship has been found in Malaysia [27], Germany [24], Spain [21], and France [23].

The Risk Exposure Effect

Although tax avoidance can enhance cash flow, it may also heighten risk for both the firm and its creditors. Complex tax avoidance strategies may lead to information asymmetry between management and creditors, reducing financial transparency and complicating accurate assessments of financial health [12, 26]. Additionally, tax avoidance may be seen as managerial opportunism or may increase agency costs [12, 22]. More importantly, it introduces tax risk, i.e., the risk of audits, penalties, or legal disputes that can result in unexpected future tax payments or legal costs [23, 24]. This elevated risk leads creditors to demand higher risk premiums, thereby increasing the firm's cost of debt [26]. Several studies report a positive relationship between tax avoidance and the cost of debt, including evidence from Indonesia (Masri & Martani, 2014) [28] and in high-tax-risk contexts such as France (Guedrib & Hamdi, 2025) [23] and Germany [24]. Research in China further shows that this relationship can shift from negative to positive following new bond issuance regulations, highlighting the role of external governance [29]. However, empirical results regarding the direct relationship between tax avoidance and the cost of debt are mixed [28]. Some studies find no statistically significant relationship, such as in Vietnam (Minh Ha et al., 2022) [12] or specific samples in Indonesia [19]. These findings suggest that in certain markets, lenders may prioritize factors such as firm performance or management efficiency over tax avoidance strategies or ownership structure [12]. The conflicting evidence may depend on national context, industry characteristics, firm attributes (e.g., size, profitability, ownership type such as state-owned or family businesses) [24, 28], the level of tax risk associated with avoidance activities [23], and the quality of corporate governance and audit [21]. Based on the argument that tax avoidance increases both information and tax-related risks for creditors, who then demand higher compensation, the following hypothesis is proposed:

***H2**: Tax avoidance has a positive effect on the cost of debt.*

The Moderating Role of Audit Quality and Listing Status in the Relationship between Earnings Management, Tax Avoidance, and the Cost of Debt

Large auditing firms (Big4) are typically regarded as providers of higher-quality audit services. Higher audit quality can mitigate information asymmetry and enhance the reliability of financial reporting [17]. In the context of tax avoidance, high-quality auditing may reduce the information risk associated with complex tax strategies or limit the ability to obscure tax-related risks. One study on SMEs found that the negative effect of tax avoidance on debt costs was significant only for firms receiving unqualified audit opinions [21]. High-quality audits are also expected to constrain earnings management [17].

Listed companies are often subjected to stricter scrutiny by the public, investors, and regulators than their unlisted counterparts [29]. This stronger external governance environment may influence how creditors perceive tax avoidance and EM practices. A study in China found that tax avoidance tends to be negatively associated with the cost of debt for listed firms but positively associated for private firms. This could be attributed to greater transparency and governance in listed firms, which reduces the information risk accompanying tax avoidance. However, there is a lack of direct evidence on the moderating role of listing status in the EM — the cost of debt relationship.

Another gap in the literature is the underexplored role of audit quality and listing status in shaping the relationship between these financial behaviors and the cost of debt. The classification of firms based on their audit quality (Big4 vs. non-Big4) and their listing status (listed vs. unlisted) can provide deeper insights into the role of transparent accounting information and institutional oversight in financial decision-making. This study aims to fill this gap by testing a model that integrates both financial behavior, earnings management and tax avoidance in relation to cost of debt, while examining the moderating roles of audit quality and listing status in various contexts. This approach is both integrative and reflective of real-world financial practices, especially in transitioning economies like Vietnam. Based on the preceding discussion, we develop the following hypotheses:

***H3a**: The impact of earnings management on the cost of debt differs across firms with different audit quality (audited by Big4 vs. non-Big4).*

H3b: *The impact of tax avoidance on the cost of debt differs across firms with different audit quality (audited by Big4 vs. non-Big4).*

H4a: *The impact of earnings management on the cost of debt differs between listed and unlisted firms.*

H4b: *The impact of tax avoidance on the cost of debt differs between listed and unlisted firms.*

RESEARCH METHODOLOGY

To test the research hypotheses regarding the effects of EM, tax avoidance, and the cost of debt in the context of audit quality and the listing status of firms in the Vietnamese stock market, this study employs a quantitative method using panel data and multivariate linear regression models. This approach allows for controlling unobserved heterogeneity across firms while simultaneously evaluating the impact of several independent variables on a dependent variable [30].

Research Models

Model 1: Examining the impact of earnings management on cost of debt.

$$COD_{it} = \beta_0 + \beta_1 EM_{it} + \alpha Control_{it} + \varepsilon_{it}. \quad (1)$$

Model 2: Examining the impact of earnings management and tax avoidance on the cost of debt, considering the roles of audit quality and listing status:

$$COD_{it} = \beta_0 + \beta_1 EM_{it} + \beta_2 ETR_{it} + \alpha Control_{it} + \varepsilon_{it}, \quad (2)$$

where COD_{it} — the cost of debt for firm i at time t, measured by interest expenses over the average total liabilities during the year; EM_{it} — degree of earnings management. In this study, EM is measured using four models: the Jones [31] model, the Modified Jones model (Dechow et al., 1995) [32], the (Kothari et al., 2005) [33] model, and the (Kasznik, 1999) [34] model.

$$\frac{TAC_{it}}{A_{it-1}} = a_1 \frac{1}{A_{it-1}} + a_2 \frac{\Delta REV_{it}}{A_{it-1}} + a_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it}, \quad (3.1)$$

$$\frac{TAC_{it}}{A_{it-1}} = a_1 \frac{1}{A_{it-1}} + a_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + a_3 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it}, \quad (3.2)$$

$$\frac{TAC_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \alpha_4 ROA_{it-1} + \varepsilon_{it}, \quad (3.3)$$

$$\frac{TAC_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + \alpha_4 \frac{\Delta CFO_{it}}{A_{it-1}} + \varepsilon_{it}, \quad (3.4)$$

where TAC_{it} represents the total accruals of firm i in year t, calculated as:

$$TAC_{it} = \Delta CA_{it} - \Delta Cash_{it} - \Delta CL_{it} - \Delta DCL_{it} - DEP_{it}. \Delta CA_{it}$$

is the change in current assets, $\Delta Cash_{it}$ is the change in cash and cash equivalents, ΔCL_{it} is the change in current liabilities, ΔDCL_{it} is the change in short-term debt, and DEP_{it} is depreciation expense. ΔREV_{it} refers to the change in revenue, ΔREC_{it} is the change in net receivables, PPE_{it} is the total fixed assets, ΔCFO_{it} is the change in cash flows from operating activities, A_{it-1} is total assets at the beginning of the year $(t-1)$, and ROA_{it-1} is return on assets in year $t-1$.

Equations (3.1), (3.2), (3.3), and (3.4) are estimated cross-sectionally by industry and by year, requiring at least 10 firms in each industry group per year. The absolute value of the residuals from these equations is used as a proxy for EM magnitude.

ETR_{it}: Tax avoidance behavior, measured as current income tax expense divided by accounting pre-tax income.

$Control_{it}$: Control variables include foreign ownership (FO), state ownership (SO), firm size (SIZE, measured by the natural logarithm of total assets), financial leverage (LEV), measured as total liabilities over total assets), and profitability (ROA, calculated as net income after tax over total assets).

Audit Quality: Firms are categorized into two groups, those audited by Big 4 audit firms and those audited by non-Big 4 firms.

Listing Status: A dummy variable is equal to 1 if the firm is listed and 0 otherwise.

Data Description

The study uses a panel dataset consisting of 8,315 firm-year observations, derived from financial statements and audit reports of Vietnamese firms over the period 2016–2024. The data are classified into 10 industry groups based on the international standard industrial classification system, including: Industrials, Information Technology, Pharmaceuticals & Healthcare, Oil & Gas, Consumer Services, Consumer Goods, Materials, Utilities, and Telecommunications. The Industrials sector comprises the largest portion of the sample, with 3,534 observations, accounting for 43% of the total. This is followed by Consumer Goods (18%) and Materials (14%). Sectors such as Oil & Gas and

Telecommunication each represent approximately 1% of the sample.

The diverse sectoral distribution enables the study to control for industry-specific characteristics that may influence the cost of debt, earnings management, or tax avoidance behaviors [4]. Data were collected from publicly available sources, including FiinPro and Vietstock.vn, ensuring objectivity and reliability. Firms operating in the financial and banking sectors were excluded due to the distinctive nature of their financial structure and accounting standards, which could bias the empirical analysis. A nine-year data collection period enhances temporal coverage and provides stability for the subsequent analyses (see *Appendix*).

RESULTS AND DISCUSSION

Baseline Model

Table 1 presents the descriptive statistics of 8,315 observations, reflecting the distributional characteristics of the variables used in the model. The dependent variable, the cost of debt (COD), has an average value of 2.53%, with a standard deviation of 2.28%, ranging from 0 to a maximum of 10%. This level of cost of debt is relatively consistent with the characteristics of the Vietnamese capital market, where borrowing costs remain high due to asymmetric information risks and significant monitoring costs.

The four earnings management variables (EM1 to EM4), derived from accrual-based models including [31–34], have mean values ranging from 7.27% to 9.40%. The tax avoidance variable (ETR) has an average value of 16.85%, which is lower than the statutory corporate tax rate of 20%, indicating signs of tax avoidance behavior within the sample (Hanlon & Heitzman, 2010).

The control variables include foreign ownership (FO), state ownership (SO), return on assets (ROA), financial leverage (LEV), a loss dummy variable (LOSS), and firm size (SIZE). These variables exhibit distributions generally consistent with theoretical expectations. The ROA variable has a positive meaning (4.07%), but it also has a large negative minimum value (–6.10%), suggesting substantial performance heterogeneity across firms. The average leverage (LEV) is 55.2%, with a large standard deviation of 77.6%, aligning with previous findings that many Vietnamese firms heavily rely on debt financing.

Overall, the descriptive statistics support the appropriateness of using multivariate linear regression models to test the research hypotheses.

Table 2 presents a Pearson correlation matrix, illustrating the relationships among the independent variables, the dependent variable, and the control variables in the model. The results indicate that the cost of debt (COD) is positively and statistically significantly correlated with all earnings management variables (EM1–EM4); however, the correlation coefficients are relatively low (ranging from 0.0103 to 0.0284), suggesting that while there is a relationship between EM and the cost of capital, it is relatively weak, consistent with findings from emerging markets where financial transparency and information symmetry are limited.

Notably, COD exhibits the strongest positive correlations with firm size (SIZE = 0.2177), return on assets (ROA = 0.1283), and leverage (LEV = 0.0864). These results imply that larger firms with better profitability and higher leverage tend to incur higher borrowing costs. This contrasts with findings from developed markets, where firm size is often associated with a lower cost of capital due to reputation effects and greater creditworthiness [35]. Such results may reflect specific characteristics of the Vietnamese market, where large firms often operate in riskier industries or have histories of high debt levels. Correlations among the earnings management indicators are particularly high, especially between EM2 and EM3 (r = 0.9815), as well as between EM1 and both EM2 and EM3 (above 0.93). This suggests a high degree of multicollinearity if these variables are included simultaneously in the regression model. These findings are consistent with the observations of [32], who noted strong movements among various discretionary accrual measures. Additionally, ROA and LOSS are negatively correlated with LEV and SIZE, suggesting that firms with lower efficiency or losses tend to be smaller and more highly leveraged. This aligns with the conclusions regarding capital structure decisions under financial distress.

Table 3 presents the estimation results, indicating that all earnings management indicators (EM1 to EM4) exhibit negative and statistically significant coefficients at the 5% level, implying an inverse relationship between EM and the cost of debt. This suggests that when firms engage in EM in a positive manner (i.e., adjusting earnings towards greater transparency and stability), the cost of borrowing tends to decline. This finding is consistent with signaling theory in finance, which posits that accounting practices aimed at enhancing the credibility of financial information are positively perceived by lenders, potentially resulting in more favorable interest rates [36]. Similarly, (Francis et al., 2005) [5] found that firms with higher earnings quality are subject to lower capital costs. However, this finding contrasts with the studies of [19, 20], while

Table 1

Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
COD	8,315	0.02529	0.0228	0	0.10007
EM1	8,315	0.09282	0.08996	0.00214	0.55742
EM2	8,315	0.09404	0.09095	0.00217	0.54704
EM3	8,315	0.09342	0.09036	0.00217	0.54704
EM4	8,315	0.07267	0.07131	0.00105	0.48669
ETR	8,315	0.16846	0.13495	−0.2201	0.89959
FO	8,315	0.05657	0.12254	0	0.99
SO	8,315	0.28377	0.30005	0	1
ROA	8,315	0.04068	0.13142	−6.10454	1.03446
LEV	8,315	0.55201	0.77614	0.00021	23.2562
LOSS	8,315	0.12123	0.32641	0	1
SIZE	8,315	27.2191	1.58326	19.2594	33.0449

Source: Compiled by the author.

aligning with the conclusions of [17]. Thus, the present study reveals a negative association between EM and the cost of debt, contrary to the initial hypothesis. This counterintuitive outcome may be interpreted as follows: (i) certain forms of EM, particularly those that increase reported earnings, may be perceived by creditors as signals of stable cash flows and short-term financial soundness. When firms demonstrate stable and favorable performance even through accounting adjustments, banks and credit institutions may assess them as lower risk and consequently offer lower borrowing rates. (ii) In markets like Vietnam, where financial disclosure is limited and information asymmetry is high, creditors may find it difficult to accurately detect EM practices [37]. Hence, if EM goes undetected or remains within acceptable bounds, the cost of debt may not rise and may even decline due to artificially positive signals. (iii) Some firms may utilize EM as a temporary financial adjustment tool during challenging periods, while maintaining credibility through long-standing banking relationships and strong internal control systems. In these cases, creditors may not react negatively to EM, resulting in lower debt costs [38].

Regarding the control variables, foreign ownership (FO) is negatively and significantly associated with the cost of debt, indicating that firms with substantial foreign ownership tend to face lower borrowing costs. This may stem from the effective monitoring role of foreign investors, which reduces the perceived risk for creditors [39]. In contrast, state ownership (SO) is statistically insignificant, suggesting that the presence of state shareholders does not meaningfully impact the cost of debt in the context of this study.

Return on assets (ROA) exhibits a negative and significant coefficient at the 5% level, implying that more profitable firms tend to enjoy lower borrowing costs. This aligns with traditional financial theories (Modigliani & Miller, 1958) [40] and empirical studies (Hung et al., 2022) [41], which argue that more efficient firms have a greater debt-servicing capacity, thereby reducing credit risk. Conversely, the LOSS variable has a positive and significant coefficient, indicating that loss-making firms incur higher debt costs, as lenders often view losses as signals of elevated risk. This result is consistent with [7, 42], who demonstrate that financial risk and reporting losses significantly increase the cost of capital.

Firm size (SIZE) is positively and significantly associated with the cost of debt, a noteworthy finding that runs counter to much of the literature from developed markets, where larger firms typically benefit from better negotiation power with lenders [35]. This may reflect a local context in Vietnam, where some large firms operate in high-risk sectors or borrow heavily, resulting in higher interest expenses.

Finally, the R-squared values range from approximately 0.047 to 0.048, indicating that the models explain around 4.7–4.8% of the variation in the cost of debt. Although this explanatory power

Table 2

Correlation Matrix

Variable	COD	EM1	EM2	EM3	EM4	ETR	FO	SO	ROA	LEV	LOSS	SIZE
COD	1											
EM1	0.0284*	1										
EM2	0.0116	0.9447*	1									
EM3	0.0156	0.9334*	0.9815*	1								
EM4	0.0103	0.5500*	0.5686*	0.5663*	1							
ETR	0.0577*	0.0445*	0.0423*	0.0409*	0.0994*	1						
FO	0.0584*	0.0592*	0.0567*	0.0546*	0.0683*	0.0248*	1					
SO	0.1181*	0.0851*	0.0889*	0.0897*	0.1005*	0.0423*	0.1723*	1				
ROA	0.1283*	0.1313*	0.1496*	0.1218*	0.1671*	0.1378*	0.0879*	0.0503*	1			
LEV	0.0864*	0.1045*	0.1153*	0.1091*	0.1509*	0.0840*	0.0573*	−0.0333*	−0.3693*	1		
LOSS	0.0900*	0.0887*	0.0971*	0.0959*	0.1719*	0.5051*	0.0491*	−0.0739*	−0.4779*	0.2420*	1	
SIZE	0.2177*	0.1298*	0.1186*	0.1177*	0.1356*	0.0914*	0.2444*	−0.0206	0.1383*	−0.0482*	−0.1716*	1

Source: Compiled by the author.
Note: *p < 0.1.

Table 3

Regression Results of Model 1

Variable	COD	COD	COD	COD
EM1	−0.00509**			
	[−2.30]			
EM2		−0.00563**		
		[−2.44]		
EM3			−0.00511**	
			[−2.22]	
EM4				−0.00771**
				[−2.41]
FO	−0.0124***	−0.0124***	−0.0124***	−0.0125***
	[−3.86]	[−3.87]	[−3.86]	[−3.89]
SO	−0.000503	−0.000535	−0.000517	−0.00048
	[−0.28]	[−0.30]	[−0.29]	[−0.27]
ROA	−0.00775**	−0.00781**	−0.00764*	−0.00769*
	[−1.97]	[−1.98]	[−1.94]	[−1.95]
LEV	0.000544	0.000537	0.000528	0.00052
	[1.11]	[1.11]	[1.09]	[1.07]
LOSS	0.00413***	0.00414***	0.00415***	0.00422***
	[3.94]	[3.94]	[3.96]	[4.02]
SIZE	0.00540***	0.00541***	0.00541***	0.00539***
	[6.43]	[6.45]	[6.45]	[6.45]
_cons	−0.120***	−0.120***	−0.120***	−0.120***
	[−5.27]	[−5.28]	[−5.28]	[−5.28]
Firm fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Observations	8315	8315	8315	8315
R−squared	0.047	0.047	0.047	0.048

Source: Compiled by the author.
Note: *p < 0.1; **p < 0.05; ***p < 0.01.

Table 4

Regression Results of Model 2

Variable	COD	COD	COD	COD
EM1	−0.00507**			
	[−2.29]			
EM2		−0.00560**		
		[−2.43]		
EM3			−0.00509**	
			[−2.22]	
EM4				−0.00766**
				[−2.40]
ETR	0.00331*	0.00331*	0.00332*	0.00329*
	[1.72]	[1.72]	[1.73]	[1.72]
FO	−0.0124***	−0.0124***	−0.0124***	−0.0125***
	[−3.87]	[−3.87]	[−3.87]	[−3.89]
SO	−0.000623	−0.000655	−0.000638	−0.000598
	[−0.35]	[−0.37]	[−0.36]	[−0.34]
ROA	−0.00743*	−0.00749*	−0.00732*	−0.00738*
	[−1.92]	[−1.93]	[−1.89]	[−1.91]
LEV	0.000552	0.000545	0.000537	0.000526
	[1.13]	[1.12]	[1.10]	[1.08]
LOSS	0.00483***	0.00484***	0.00486***	0.00492***
	[4.31]	[4.32]	[4.34]	[4.39]
SIZE	0.00535***	0.00537***	0.00537***	0.00535***
	[6.39]	[6.41]	[6.40]	[6.41]
_cons	−0.119***	−0.120***	−0.120***	−0.119***
	[−5.26]	[−5.27]	[−5.27]	[−5.26]
Firm fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Observations	8315	8315	8315	8315
R−squared	0.048	0.048	0.048	0.048

Source: Compiled by the author.

Note: *p < 0.1; **p < 0.05; ***p < 0.01.

is modest, it is acceptable given the nature of large panel data and the influence of many unobservable qualitative factors on the dependent variable.

In summary, the findings confirm the role of earnings management in reducing firm's borrowing costs. This suggests that improving the quality of accounting information and promoting financial transparency can serve as effective tools for firms to enhance access to capital at reasonable costs. Moreover, the monitoring role of major shareholders and profitability emerge as key factors in reinforcing a firm's financial credibility in the eyes of lenders.

EXTENDED MODEL

Analysis and Discussion of Extended Research Results

The study further examines the relationship between EM and the cost of debt (*Table 4*) by incorporating the variable measuring the firm's level of tax avoidance (ETR). The regression results across all four models (EM1 to EM4) demonstrate that the relationship between earnings management and the cost of debt remains consistent in terms of direction and statistical significance, while also revealing the additional impact of tax avoidance behavior on the cost of capital. All earnings management variables (EM1 to EM4) have negative statistically significant coefficients at the 5% level, consistent with the baseline model results.

These findings further confirm that firms with lower levels of earnings management (i.e., those reporting more transparent earnings) tend to incur lower borrowing costs. This can be explained by asymmetric information theory (Spence, 1973) [16], which suggests that high-quality earnings reports send positive signals to external stakeholders such as banks or bondholders, thereby reducing perceived credit risk and resulting in lower interest rates [5, 36]. This result aligns with studies in emerging economies

with improving transparency, such as Vietnam, where firms increasingly recognize the long-term benefits of financial transparency for accessing capital at reasonable costs [43].

The Impact of Corporate Income Tax Avoidance on Cost of Debt

The regression results indicate that the coefficient of ETR is positive and statistically significant at the 10% level across all four models. This positive coefficient implies that a higher level of tax avoidance (i.e., a lower ETR) reduces the cost of debt financing. This can be explained by the fact that tax avoidance helps firms retain more cash flow, thereby increasing their repayment capacity and reducing perceived credit risk from the lenders' perspective. This finding is consistent with the study of (Graham & Tucker, 2006) [6], which shows that tax avoidance improves cash flow and can lead to short-term financial benefits for firms. The result also aligns with those of [23, 24, 28], thus supporting hypothesis H2. The R-squared value slightly increases from 0.047 to 0.048 after including the ETR variable, indicating a small but meaningful contribution of tax avoidance in explaining the variation in the corporate cost of debt. This positive signal suggests that further exploration of the ETR variable in financial models within developing economies is warranted.

The extended model results incorporating the tax avoidance variable demonstrate that accounting behavior affects the cost of debt not only through EM but also through tax strategies. Firms should consider maintaining effective tax policies that do not pose excessive risks while ensuring transparency in financial reporting, to enhance their access to low-cost capital. Regulatory authorities should develop more effective tax avoidance oversight frameworks balancing the goals of encouraging corporate cash flow and maintaining tax fairness, while continuing to promote improvements in financial information quality as an indirect support channel for financial markets.

Analysis and Discussion of Results by the Big4 and Non-Big4 Audit Groups

The study further analyzes the relationship between EM, tax avoidance, and the cost of debt by splitting the sample into two groups based on audit quality: firms audited by Big4 audit firms (n = 1,749) and the remaining firms (n = 6,566). The aim is to clarify the role of audit quality in the relationship between accounting behavior and the cost of capital. The regression results (*Table 5*) show that the variables representing earnings management (EM1, EM2, EM3) have negative coefficients that are statistically significant at the 5% level within the Big4-audited group. This indicates that in firms audited by Big4 often characterized by higher reliability and transparency of information EM has a clear negative effect on borrowing costs. This finding aligns with previous research suggesting that high audit quality enhances the reliability of financial information, making financial report signals more influential in lenders' decision-making [5, 10].

Conversely, in the non-Big4 group, EM1, EM2, and EM3 variables also have negative coefficients but with lower statistical significance. This suggests that while the negative relationship between EM and the cost of capital persists, but its strength and consistency are weaker compared to the Big4 group. This implies that for firms with lower audit quality, their EM behaviors may not be clearly identified by the market or lending institutions, resulting in less effective signaling from financial reports. This is consistent with (Krishnan, 2003) [44] argument that high-quality auditors contribute to enhancing financial reporting quality and mitigating asymmetric information risks.

Notably, within the non-Big4 group, the tax avoidance variable (ETR) has a significant positive coefficient at the 10% level across all models, suggesting that tax avoidance may be perceived by the market as beneficial by helping firms reduce cash outflows and increase liquidity. However, this may also reflect ineffective monitoring of potentially risky behaviors such as tax avoidance in firms with low-quality auditing. Therefore, hypotheses H3a and H3b are accepted.

Overall, the results highlight the clear role of Big4 audits: the negative relationship between EM and the cost of capital is stronger in the Big4 group. This reinforces the hypothesis regarding the mediating role of audit quality in reducing information asymmetry and enhancing the credibility of accounting signals [17]. From a policy perspective, these findings suggest that improving audit quality, especially strengthening the oversight role of independent auditors, is crucial for helping firms access capital more efficiently. Investors and creditors should pay particular attention to audit quality when assessing corporate financial risk. Additionally, the ROA variable exhibits a negative and statistically significant coefficient, and foreign ownership (FO) also shows a clearly negative coefficient, further reflecting the supervisory role of both operational efficiency and major shareholders in reducing the cost of capital.

Table 5

Regression Results under Different Audit Quality Contexts

Variable	COD	COD	COD	COD	COD	COD	COD	COD
EM1	−0.0121**				−0.00392			
	[−2.34]				[−1.59]			
EM2		−0.0105**				−0.00507*		
		[−2.08]				[−1.94]		
EM3			−0.0103**				−0.00444*	
			[−2.07]				[−1.70]	
EM4				−0.0109				−0.00712*
				[−1.60]				[−1.96]
ETR	−0.002	−0.0018	−0.00167	−0.00137	0.00360*	0.00358*	0.00359*	0.00352*
	[−0.43]	[−0.38]	[−0.35]	[−0.29]	[1.69]	[1.67]	[1.68]	[1.65]
FO	−0.0112***	−0.0111**	−0.0111**	−0.0114***	−0.0126**	−0.0127**	−0.0126**	−0.0126**
	[−2.60]	[−2.58]	[−2.58]	[−2.67]	[−2.53]	[−2.53]	[−2.53]	[−2.52]
SO	0.00126	0.00119	0.00118	0.00129	−0.000689	−0.000723	−0.000704	−0.000678
	[0.34]	[0.32]	[0.32]	[0.35]	[−0.34]	[−0.36]	[−0.35]	[−0.34]
ROA	−0.0309***	−0.0316***	−0.0312***	−0.0296***	−0.00609*	−0.00616*	−0.00600*	−0.00612*
	[−2.73]	[−2.78]	[−2.76]	[−2.60]	[−1.76]	[−1.77]	[−1.73]	[−1.75]
LEV	0.00188	0.00174	0.00184	0.00128	0.00042	0.00042	0.000411	0.000405
	[0.34]	[0.32]	[0.34]	[0.23]	[0.87]	[0.88]	[0.86]	[0.85]
LOSS	0.000528	0.000572	0.000618	0.00105	0.00499***	0.00500***	0.00502***	0.00506***
	[0.17]	[0.18]	[0.20]	[0.33]	[4.39]	[4.39]	[4.40]	[4.43]
SIZE	0.00661***	0.00664***	0.00661***	0.00652***	0.00493***	0.00494***	0.00494***	0.00493***
	[2.90]	[2.92]	[2.90]	[2.87]	[5.46]	[5.47]	[5.47]	[5.48]
_cons	−0.159**	−0.160**	−0.159**	−0.157**	−0.106***	−0.106***	−0.107***	−0.106***
	[−2.54]	[−2.55]	[−2.54]	[−2.51]	[−4.39]	[−4.39]	[−4.39]	[−4.39]
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1749	1749	1749	1749	6566	6566	6566	6566
R−squared	0.086	0.086	0.086	0.084	0.041	0.042	0.042	0.042

Source: Compiled by the author.

Note: *p < 0.1; **p < 0.05; ***p < 0.01.

Analysis and Discussion of Research Results by Listed and Unlisted Firms

As presented in *Table 6*, the variables representing earnings management (EM1 to EM4) in the group of unlisted firms are all statistically insignificant, with t-statistics below conventional thresholds to conclude any meaningful difference. This indicates that in unlisted firms, EM does not have a clear impact on the cost of debt. This phenomenon can be explained by the limited information transparency and weaker market supervision in unlisted firms, which makes it difficult for creditors to detect or accurately quantify accounting behaviors [45].

In contrast, the results for the listed firms show significant differences. All variables representing earnings management (EM1 to EM4) have negative coefficients that are statistically significant at the 1% level. These results clearly demonstrate that in listed firms where financial information must comply with higher standards and is closely monitored by the market, EM has a strong negative effect on the cost of debt. This is consistent with prior studies, such as Francis et al. (2005), who argue that lower earnings increase borrowing costs due to heightened information risk and potential mispricing.

Table 6

Regression Results by Listed Company Status

Variable	COD	COD	COD	COD	COD	COD	COD	COD
EM1	−0.00136				−0.00933***			
	[−0.43]				[−2.99]			
EM2		−0.00167				−0.0102***		
		[−0.52]				[−3.12]		
EM3			−0.00081				−0.0103***	
			[−0.25]				[−3.15]	
EM4				−0.00279				−0.0124***
				[−0.64]				[−2.67]
ETR	0.00083	0.00083	0.00084	0.00084	0.00458*	0.00458*	0.00458*	0.00454*
	[0.31]	[0.31]	[0.31]	[0.32]	[1.69]	[1.69]	[1.69]	[1.68]
FO	−0.0129**	−0.0129**	−0.0129**	−0.0130**	−0.0105***	−0.0106***	−0.0106***	−0.0105***
	[−2.10]	[−2.10]	[−2.10]	[−2.11]	[−2.81]	[−2.82]	[−2.82]	[−2.82]
SO	1E-04	9E-05	0.00011	0.0001	−0.00162	−0.00168	−0.00168	−0.0015
	[0.05]	[0.04]	[0.05]	[0.05]	[−0.52]	[−0.54]	[−0.54]	[−0.48]
ROA	−0.00489	−0.00492	−0.00485	−0.00494	−0.0288***	−0.0289***	−0.0288***	−0.0271***
	[−1.54]	[−1.54]	[−1.53]	[−1.54]	[−4.09]	[−4.11]	[−4.10]	[−3.86]
LEV	0.000932*	0.000933*	0.000925*	0.000927*	0.00403	0.00391	0.00395	0.00386
	[1.77]	[1.77]	[1.76]	[1.77]	[1.00]	[0.97]	[0.98]	[0.96]
LOSS	0.00471***	0.00471***	0.00471***	0.00474***	0.00203	0.0021	0.00209	0.00247
	[3.80]	[3.80]	[3.80]	[3.82]	[1.09]	[1.12]	[1.12]	[1.31]
SIZE	0.00694***	0.00695***	0.00694***	0.00694***	0.00217**	0.00217**	0.00215**	0.00220**
	[5.53]	[5.51]	[5.50]	[5.54]	[2.03]	[2.03]	[2.02]	[2.07]
_cons	−0.161***	−0.161***	−0.161***	−0.161***	−0.0331	−0.0328	−0.0324	−0.0339
	[−4.80]	[−4.80]	[−4.79]	[−4.81]	[−1.15]	[−1.14]	[−1.13]	[−1.18]
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4449	4449	4449	4449	3866	3866	3866	3866
R−squared	0.06	0.06	0.06	0.06	0.053	0.053	0.054	0.052

Source: Compiled by the author.

Note: *p < 0.1; **p < 0.05; ***p < 0.01.

Based on the regression results, the variable representing tax avoidance behavior (ETR) shows no statistically significant effect on the cost of debt (COD) in the overall sample and or in the unlisted firms group (UPCOM). However and it is statistically significant at the 10% level in the listed firms group (with a coefficient of around 0.0046 and a t-value of near 1.69). This suggests that the positive relationship between tax avoidance and the cost of debt is more clearly observed among listed firms. These results align with signaling theory and information risk theory in capital markets, and thus hypotheses H4a and H4b are accepted. Specifically, firms with higher tax avoidance are often perceived by creditors as having lower financial transparency and a greater likelihood of using financial reports to conceal risks [29, 46]. Consequently, banks and other credit institutions may demand higher interest rates to compensate for the potential risk. However, among unlisted firms, poor information disclosure and weak monitoring systems make it difficult for creditors to clearly assess tax avoidance behavior, thereby weakening the relationship between ETR and the cost of debt.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study examined the impact of EM and tax avoidance on the cost of debt financing in the context of Vietnamese firms, while also analyzing the roles of audit quality (Big4) and listing status (officially listed and UPCOM). Using fixed-effects regression analysis on panel data comprising over 8,315 observations

from non-financial firms, the study provides clear evidence of the negative effect of EM on the cost of debt, particularly in firms with higher transparency levels.

First, the results indicate that variables representing earnings management behavior (EM1 to EM4) have a negative and statistically significant effect on the cost of debt in the subsamples of firms audited by Big4 and those listed on the stock exchange. This implies that lower quality accounting information, as reflected in earnings management, leads creditors to demand higher risk premiums when lending [5, 7]. Conversely, for firms audited by non-Big4 auditors or unlisted firms, this effect is not statistically significant, reflecting limitations in using accounting information to assess credit risk in firms with lower levels of information disclosure [45].

Second, the study finds that tax avoidance behavior, measured by the Effective Tax Rate (ETR), is positively but inconsistently related to the cost of debt. This relationship reflects creditors' perspectives on potential information risk and managerial opportunism. According to [4], tax avoidance can signal efficient financial management, but it may also indicate the risks of opacity and fraud, resulting in higher capital costs due to an increased perceived risk for creditors.

Third, the study confirms the critical role of supervisory mechanisms and audit quality. Firms audited by the Big4, known for their high audit quality and relative independence from client influence, exhibit a clear relationship between EM and cost of debt, indicating that more reliable financial information helps creditors respond appropriately to accounting behavior [47, 48]. Similarly, in listed firms under public and regulatory scrutiny, the relationship between EM and the cost of debt is stronger.

Fourth, to mitigate risks associated with tax avoidance behavior, banks often establish stringent credit assessment procedures. These include evaluating the quality of financial statements, the level of information transparency, and the firm's compliance with tax obligations. Banks may also implement credit scoring mechanisms that are linked to the degree of tax compliance. This directly influences interest rates and access to credit. This creates an economic incentive for firms to enhance transparency and fulfill their tax obligations in order to improve borrowing conditions and reduce the cost of debt.

Contributions to Theory and Practice

Theoretically, this study contributes to the literature on financial reporting quality and earnings management by clarifying the effect of such behavior on the cost of debt in the emerging market context of Vietnam. The results support agency theory and asymmetric information theory, arguing that distorted accounting information leads creditors to demand higher risk premiums to compensate for uncertainty [49].

Furthermore, the findings reinforce and extend signaling theory [16], and agency theory [14], Capital Structure Theory [18], where tax avoidance is seen as a negative signal of conflicts between shareholders and creditors. In emerging markets like Vietnam, where accounting standards and oversight are still developing, tax avoidance can increase borrowing costs due to lenders' diminished trust. Additionally, the study corroborates prior research that audit quality and information transparency moderates the relationship between accounting behavior and debt market reactions [5, 50].

Practically, the study provides important evidence for investors and credit institutions in evaluating corporate credit risk. Detecting EM should be considered a negative indicator of financial risk, especially for firms with high transparency. Policymakers may infer that enhancing audit quality and promoting listing can improve transparency and reduce firms' cost of capital. Managerially, the study warns firms to carefully weigh the short-term benefits of tax reduction against the long-term risk of higher debt costs. Policymakers should also strengthen transparency and supervision of tax avoidance behaviors to enhance market trust.

Recommendations

For firms: Improve the quality of financial information and minimize earnings management, as this effect investor confidence and increases the cost of debt. Collaborating with reputable audit firms like Big4 can affects enhance the reliability of financial reports.

For policymakers: Implement mechanisms to encourage transparency and standardize financial disclosure requirements, especially for unlisted and UPCOM-listed firms. Consider raising audit standards for non-Big4 firms to ensure more uniform financial supervision quality.

For credit institutions: Actively utilize accounting information in risk assessment and differentiate the reliability of financial reports based on the audit firms and listing status. Incorporate EM behavior into credit scoring models as a risk-enhancing factor.

Limitations and Future Research Directions

This study has several limitations that need to be addressed in future research. First, earnings

management measurement relies mainly on accounting models (EM1 to EM4), which may be affected by model errors or industry characteristics. Future studies could integrate non-financial data (e.g., delivery times, accounting staff turnover) or machine learning techniques to detect abnormal accounting behaviors more accurately [51]. Second, this research focuses solely on the cost of debt, while the cost of equity, a significant component of capital structure, remains unexamined. Future research could expand the model to analyze the impact of EM on overall capital costs (WACC). Third, the study context is limited to Vietnam, an emerging economy, so the results may not fully generalize to developed economies. Subsequent research might broaden the scope by comparing countries or economic regions to assess institutional and legal roles in the relationships between EM, tax avoidance, and capital costs.

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Conflicts of Interest Statement: The author has no conflicts of interest to declare.
Конфликт интересов: автор заявляет об отсутствии конфликта интересов.

The article was submitted on 03.06.2025; revised on 20.06.2025 and accepted for publication on 27.06.2025.
The author read and approved the final version of the manuscript.
Статья поступила в редакцию 03.06.2025; после рецензирования 20.06.2025; принята к публикации 27.06.2025.
Автор прочитал и одобрил окончательный вариант рукописи.

Appendix

Research Data

Industry	Year									Total	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	N	%
Industry	342	371	387	394	396	409	407	406	422	3,534	43%
Information Technology	17	18	21	14	18	15	16	17	14	150	2%
Pharmaceuticals and Healthcare	36	27	36	43	46	44	46	47	47	372	4%
Oil and gas	9	11	10	9	7	11	9	10	9	85	1%
Consumer Services	57	70	71	80	85	47	86	85	80	661	8%
Consumer Goods	139	149	152	164	172	176	176	170	170	1,468	18%
Raw Materials	110	121	124	127	126	137	129	128	124	1,126	14%
Community Utilities	77	92	92	92	97	102	104	104	101	861	10%
Telecommunications	7	6	5	6	7	6	7	7	7	58	1%
Total	794	865	898	929	954	947	980	974	974	8,315	100%

Source: Compiled by the author.

Translated by N.I. Sokolova