# Customer Concentration and Foreign Investor, ESG Performance, and Corporate Tax Avoidance: Evidence from Thailand*

**Dr.Piyanat Thunputtadom**

*Lecturer of Accounting Department, Faculty of Humanities and Social Sciences,*
*Raja Mangala University of Technology Tawan-Ok, Bangpra Campus*
*(Corresponding Author)*

**Dr.Pannarai Lata**

*Associate Professor of Accounting Department, Faculty of Business Administration,*
*King Mongkut's University of Technology North Bangkok, Rayong Campus*

## ABSTRACT

Findings reveal a statistically significant negative association between customer concentration and the TAX/CFO ratio, indicating that firms with a high dependency on major customers are likely to engage in tax avoidance. Similarly, foreign investor shareholding is negatively related to ETR, suggesting that firms with a significant proportion of foreign ownership exhibit strong tendencies toward adopting tax avoidance strategies.

The study identifies the moderating role of ESG performance. Specifically, ESG engagement weakens the link between customer concentration and tax avoidance, indicating that robust ESG practices may temper aggressive tax avoidance behaviors associated with concentrated revenue sources. In contrast, ESG performance amplifies the relationship between foreign investor shareholding and tax avoidance, implying that foreign investors may use ESG as a symbolic mechanism to legitimize tax avoidance behavior. These findings contribute to a deeper understanding of how ESG performance interacts with ownership structures and customer dynamics in shaping corporate tax strategies in an emerging market context such as Thailand.

**Keywords**: Customer Concentration, Foreign Ownership, ESG Performance, Tax Avoidance, Tax Planning

# ความเข้มข้นของลูกค้าและนักลงทุนต่างชาติ การปฏิบัติงานด้าน ESG และพฤติกรรมการหลีกเลี่ยงภาษี ของบริษัท : หลักฐานเชิงประจักษ์จากประเทศไทย

**ดร.ปิยะณัฐ  ถุนพุทธดม**

อาจารย์ประจำสาขาวิชาการบัญชี คณะมนุษยศาสตร์และสังคมศาสตร์
มหาวิทยาลัยเทคโนโลยีราชมงคลตะวันออก เขตพื้นที่บางพระ
(ผู้ประสานงานหลัก)

**ดร.พรรณราย  ละตา**

รองศาสตราจารย์ประจำสาขาวิชาการบัญชี
คณะบริหารธุรกิจ มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าพระนครเหนือ วิทยาเขตระยอง

## บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์ เพื่อวิเคราะห์ความสัมพันธ์ระหว่างความกระจุกตัวของลูกค้า สัดส่วนการถือหุ้นของ นักลงทุนต่างชาติ ผลการดำเนินงานด้าน ESG และพฤติกรรมการหลีกเลี่ยงภาษีของบริษัท กลุ่มตัวอย่างที่ใช้จาก การศึกษาคือ บริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยในกลุ่ม SET 100 ในปี พ.ศ. 2563–2567 จำนวน 133 บริษัท (จำนวนทั้งสิ้น 665 ตัวอย่าง) และใช้เทคนิคการวิเคราะห์ถดถอยพหุคูณในการทดสอบสมมติฐานการวิจัย โดยการวัดพฤติกรรมการหลีกเลี่ยงภาษีดำเนินการผ่านตัวชี้วัด 3 รายการ ได้แก่ อัตราภาษีที่แท้จริง (ETR) อัตราส่วน ค่าใช้จ่ายภาษีต่อกระแสเงินสดจากการดำเนินงาน (TAX/CFO) และอัตราส่วนค่าใช้จ่ายภาษีต่อสินทรัพย์รวม (TAX/ASSET) ซึ่งสะท้อนระดับความรับผิดชอบของบริษัทในการชำระภาษีตามที่พึงต้องปฏิบัติ

ผลการวิเคราะห์เชิงประจักษ์พบว่า ความกระจุกตัวของลูกค้ามีความสัมพันธ์เชิงลบอย่างมีนัยสำคัญกับตัวแปร TAX/CFO แสดงให้เห็นว่า บริษัทที่พึ่งพิงลูกค้ารายสำคัญมีแนวโน้มที่จะหลีกเลี่ยงภาษีในระดับสูง สัดส่วนการถือหุ้น ของนักลงทุนต่างชาติมีความสัมพันธ์เชิงลบอย่างมีนัยสำคัญกับค่า ETR ซึ่งบ่งชี้ว่า บริษัทที่มีนักลงทุนต่างชาติใน สัดส่วนสูงมีแนวโน้มที่จะใช้กลยุทธ์ด้าน ภาษีเชิงรุกมากยิ่งขึ้น

นอกจากนี้ บทบาทของ ESG Performance ในฐานะตัวแปรกำกับความสัมพันธ์ โดยพบว่า ESG Performance ส่งผลลดทอน ความสัมพันธ์ระหว่างความกระจุกตัวของลูกค้าและพฤติกรรมการหลีกเลี่ยงภาษี ซึ่งสะท้อนว่าการ ดำเนินงานด้าน ESG ที่เข้มแข็งสามารถ ลดพฤติกรรมการหลีกเลี่ยงภาษีที่เกี่ยวข้องกับลูกค้ารายใหญ่ได้ ในทางกลับกัน ESG Performance ส่งผลเสริมความสัมพันธ์ระหว่างการถือหุ้นของนักลงทุนต่างชาติและพฤติกรรมการหลีกเลี่ยงภาษี

อันแสดงถึงความเป็นไปได้ที่นักลงทุนต่างชาติจะใช้ ESG เป็นกลยุทธ์เชิงสัญลักษณ์เพื่อสร้างความชอบธรรมในการใช้แผนภาษีเชิงรุก ผลการศึกษานี้มีส่วนช่วยเพิ่มความเข้าใจเชิงลึกเกี่ยวกับบทบาทของ ESG Performance ในการปฏิสัมพันธ์กับโครงสร้างความเป็นเจ้าของและพลวัตของลูกค้าในการกำหนดพฤติกรรมด้านภาษีของบริษัท โดยเฉพาะในบริบทของตลาดเกิดใหม่อย่างประเทศไทย

**คำสำคัญ:** การกระจุกตัวของลูกค้า ผู้ถือหุ้นต่างชาติ การปฏิบัติงานด้าน ESG การหลีกเลี่ยงภาษี การวางแผนภาษี

## INTRODUCTION

Corporate income tax represents a mandatory financial obligation for companies, commonly perceived as a burden. Consequently, tax planning emerges as a critical strategic approach to minimize tax liabilities. Tax avoidance, a key component of corporate tax planning, involves the strategic application of professional expertise to identify and exploit legal loopholes within the tax code (Fisher, 2014; Duhoon & Singh, 2023). This legally sanctioned practice seeks to reduce tax burdens while enhancing firms' financial performance and net profitability (Mannan et al., 2020; Hossain et al., 2024). Although tax avoidance may yield large profits and shareholder returns, it has raised increasing concern among governments worldwide, given the reliance on corporate tax revenues to fund public expenditures.

Tax avoidance reduces the effective tax contributions of firms, particularly in the case of multinational enterprises operating across jurisdictions with varying tax regimes (Sasse et al., 2020; Ouelhadj & Bouchetara, 2021; Mori, 2024; Saptono et al., 2024). The erosion of tax bases—particularly through profit shifting by multinational enterprises to low- or zero-tax jurisdictions, commonly referred to as "tax havens"—has amplified scrutiny (Ouelhadj & Bouchetara, 2021; Mori, 2024). High-profile cases involving Apple, McDonald's, Starbucks, Fiat, Amazon, Google, and Ikea illustrate how such strategies exploit preferential tax regimes (Yang et al., 2018; Jemiolo & Farnsel, 2023). In response, the Organization for Economic Co-operation and Development (OECD) launched the Base Erosion and Profit Shifting (BEPS) Project as a global initiative to combat aggressive tax planning and enhance the integrity of international tax systems. Since 2017, Thailand has become a member of the OECD's Inclusive Framework on BEPS, reflecting its commitment to curbing cross-border tax avoidance and aligning domestic tax policies with international standards (OECD, 2024).

This global concern has prompted extensive academic inquiry into the determinants of corporate tax avoidance across various national contexts, aiming to inform policy reform and enhance national tax systems in line with international standards. Prior research has explored variables such as shareholder structure and executive characteristics (Dang & Nguyen, 2022; Khelil & Khlif, 2023; Yahaya et al., 2025), firm-specific financial characteristics (Alsaadi, 2020; Ariff et al., 2023; Tanko, 2025), corporate governance mechanisms, auditor quality, and environmental, social, and governance (ESG) performance (Abid & Dammak, 2022; Qawqzeh, 2023; Ghorbel & Boujelben, 2025).

An emerging area of scholarly interest concerns customer concentration—defined as the extent of a firm's dependence on a small number of major customers for its revenue. High customer reliance can increase exposure to cash flow volatility and weaken bargaining power. In response, firms with high customer concentration face the potential threat of losing key customers, which may compel

executives to adopt strategies aimed at mitigating financial risks. These strategies often include the use of tax planning or, in some cases, tax avoidance as mechanisms to manage liquidity and maintain competitiveness (Huang & Gao, 2022).

In the literature, existing studies have examined the interrelationships among customer concentration, foreign ownership, ESG performance, and tax avoidance, guided by the theoretical lenses of agency theory and stakeholder theory. Customer concentration introduces firm-level risk, especially in contexts where companies are heavily dependent on a limited number of key customers or suppliers, whose future reliability may be uncertain. Under such conditions, tax avoidance may serve as a strategy to preserve cash flow and financial flexibility, thereby enabling continued investment and relationship maintenance with major stakeholders (Moradi et al., 2019; Abbasi & Tamoradi, 2020; Cao et al., 2020). This line of reasoning suggests a positive association between customer concentration and tax avoidance (Cao et al., 2020; Huang & Gao, 2022), Although agency theory does not directly predict this relationship, it provides a framework wherein executives engage in tax avoidance to safeguard liquidity and mitigate conflicts with shareholders. Simultaneously, this interpretation aligns with stakeholder theory, which underscores the firm's obligation to sustain long-term relationships with critical stakeholders, including key customers. These decisions ultimately influence the extent to which tax avoidance is utilized as a risk mitigation tool.

Similar theoretical ambiguity applies to foreign ownership and ESG performance. On the one hand, increased foreign ownership may incentivize tax avoidance, particularly when foreign managers or controlling shareholders influence tax strategies, such as transfer pricing or cross-border profit shifting. Although this study primarily focuses on external foreign shareholders as the measure of foreign ownership, agency theory remains relevant in contexts where foreign managers exert influence on corporate tax planning (Suranta et al., 2020; Alkurdi & Mardini, 2020; Prayitno et al., 2023; Kalra & Afzal, 2023). On the other hand, foreign ownership may also promote high levels of tax compliance, particularly when foreign investors prioritize corporate governance quality and long-term risk management. This perspective aligns with stakeholder theory, emphasizing value creation and accountability for a broad spectrum of constituents (Alregab, 2022; Pujiningsih & Salsabyla, 2022; Wen et al., 2022; Abdelkader & Gao, 2023; Hasan et al., 2023).

With regard to a firm's ESG performance, although prior studies have reported mixed findings concerning its relationship with tax avoidance (Jemiolo & Farnsel, 2023), this dimension has gained increasing prominence in the Thai context. The Stock Exchange of Thailand (SET), for instance, has emphasized ESG considerations by evaluating and recognizing listed companies that align with ESG principles through their inclusion in the Thailand Sustainability Investment (THSI) index (SET, 2025).

This institutional initiative reflects corporate commitments to ethical practices and the generation of long-term value, consistent with the core tenets of stakeholder theory.

In Thailand, persistent inefficiencies in government tax collection have been observed over the past three decades. Despite continuous policy efforts, the state has struggled to generate sufficient tax revenue to support national administration. For instance, in 2019, Thailand's tax-to-GDP ratio stood at only 21%—markedly lower than that of many other countries—and has shown limited improvement in subsequent years (World Bank, 2023). This shortfall raises concerns regarding the government's fiscal sustainability and its capacity to finance essential public services over the long term. According to the OECD's *Revenue Statistics in Asia and the Pacific 2024 – Thailand* report, the average tax-to-GDP ratio in the Asia-Pacific region in 2022 was 19.3%, while the OECD average stood at 34.0%. In contrast, Thailand recorded an average of only 16.7%, significantly trailing both regional and global benchmarks. This gap is attributed to various structural and administrative constraints, including a significant tax gap, limited technological infrastructure for tax administration, and the absence of integrated data systems to effectively check tax avoidance (World Bank, 2023).

In light of these challenges, this study aims to expand the empirical evidence on the determinants of tax avoidance in Thailand, particularly given the country's participation in the OECD's Inclusive Framework on Base Erosion and Profit Shifting. The findings seek to inform the development of more effective regulatory responses to tax avoidance while also facilitating a balance between attracting investment and safeguarding the domestic tax base from erosion and profit shifting. Furthermore, the results may contribute to policy recommendations aimed at strengthening the institutional capacity of tax authorities, particularly in addressing cross-border tax issues, as advocated by the World Bank.

Within the Thai context, such issues have received limited scholarly attention. Recent evidence by Syukur and Jongsureyapart (2023) indicates that foreign ownership significantly impacts tax avoidance, with large foreign shareholdings positively correlated with high levels of tax avoidance. Similarly, Syahputri (2025) and Novriansa and Siahaan (2025) conducted a comparative analysis across ASEAN countries and found that ESG performance in Thailand contributes to a reduction in tax avoidance. Nevertheless, existing empirical research has not sufficiently examined the moderating effect of ESG performance on the relationship between these determinants and tax avoidance. Moreover, empirical insights into the link between customer concentration and tax avoidance in the Thai setting remain sparse and inconclusive.

This study is expected to make the following significant contributions: (1) addressing the academic gap in Thailand by providing empirical evidence on customer concentration, foreign shareholding, and tax avoidance; (2) demonstrating the moderating effect of ESG performance on these relationships;

(3) extending the theoretical framework of agency theory and stakeholder theory to incorporate ESG perspectives; (4) offering policy insights for Asia-Pacific economies and BEPS member states in strengthening tax governance; and (5) providing practical recommendations for Thai regulators on integrating ESG indicators into risk assessment frameworks to enhance corporate transparency.

This article is organized as follows: Section 2 reviews the relevant literature, theoretical foundations, and the development of research hypotheses. Section 3 outlines the research methodology, including data sources, sampling procedures, and variable measurement. Section 4 presents the empirical findings based on the analysis. Section 5 offers the study's conclusions, while Section 6 discusses the implications of the findings, outlines the limitations of the research, and suggests directions for future research.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1 Agency Theory

Agency theory provides a conceptual framework to examine the relationship between two principal actors within a firm: (1) the executives, referred to as agents, and (2) the shareholders or investors, referred to as principals (Jensen & Meckling, 1976). Using this framework, agents are authorized and contractually obligated to manage corporate operations on behalf of the principals, who delegate decision-making authority to the agents with the expectation that their interests will be served efficiently. However, conflicts often arise due to the misalignment of interests between the two parties, resulting in agency conflicts. These conflicts may result in decisions that serve the interests of the agents at the expense of the principals, thereby undermining the long-term performance and sustainability of the firm (Putra et al., 2018).

Within the framework of agency theory, this perspective is particularly relevant to understanding the relationship between customer concentration, foreign ownership, and tax avoidance. In firms with high customer concentration, executives may accumulate substantial cash reserves to hedge against the risk of losing key customers. These reserves can then be allocated to tax planning strategies designed to preserve liquidity and strengthen bargaining power. Similarly, in firms with significant foreign ownership, investors may pressure executives to adopt more aggressive tax avoidance approaches to maximize returns through resource allocation and dividend distribution. In both scenarios, tax avoidance becomes a function of managerial discretion, aimed at reducing the tax burden, improving the cash flow, allocating resources to strategic customers or partners, and optimizing strategic investments or payouts. Common strategies include earnings management through sophisticated accounting techniques (Maqsood et al., 2024) and transfer pricing arrangements with affiliated foreign authorities.

While such practices may not necessarily contravene existing tax laws, they often give rise to ethical concerns and may adversely impact a wide group of stakeholders beyond shareholders, including employees, customers, and regulatory bodies (Kujala et al., 2022). Over time, the use of aggressive tax strategies may also undermine the firm's reputation and long-term viability (Rudyanto & Pirzada, 2021).

## 2.2 Stakeholder Theory

Stakeholder theory, as introduced by Freeman (1984), broadens the traditional scope of agency theory by incorporating the interests of a wide set of stakeholders. While agency theory centers on the relationship between executives (agents) and investors or shareholders (principals), stakeholder theory extends the firm's responsibilities to include both internal stakeholders (e.g., employees) and external ones (e.g., investors, suppliers, customers, government agencies, communities, political actors, and professional associations). These stakeholders may be directly or indirectly affected by corporate decisions taken by corporate executives, either in a positive or negative manner (Freeman, 1984; Chouaibi et al., 2022). Consequently, the relationship between firms and their stakeholders plays a critical role in shaping corporate strategies aimed at value creation and long-term performance.

Firms that are responsive to stakeholder interests are more likely to generate sustainable value, promote stakeholder well-being, and reinforce organizational legitimacy. A primary mechanism for achieving these outcomes is the adoption of ESG practices. These practices enhance long-term value by improving the firm's reputation, trustworthiness, and social credibility. As such, ESG performance is often viewed as an indicator of a firm's ethical conduct and long-term commitment to responsible business behavior (Rudyanto & Pirzada, 2021).

## 2.3 Tax Planning and Tax Avoidance

Taxation has emerged as a central theme in corporate research, with scholars exploring its implications through lenses such as tax planning and tax avoidance. Tax planning has been defined in various ways by scholars, and there exists no universally agreed-upon definition. For instance, Hoffman (1961) described it as taxpayers' ability to manage their financial affairs in a way that minimizes their tax liabilities. Similarly, Pniowsky (2010) defined tax planning as the structuring of a company's operations with the aim to defer, lower, or eliminate the amount of tax payable to the government. In the same vein, Aronmwan and Okafor (2019) conceptualized it as engaging in lawful activities that yield tax benefits, such as investing in tax-exempt securities or establishing operations in tax-incentivized zones. Likewise, Fallan et al. (1995) framed tax planning as a legal strategic

decision-making process aimed at lowering ETRs by comparing tax burdens across different economic activities and jurisdictions and exploiting statutory tax incentives.

Tax avoidance is widely recognized as a key component of tax planning (Hanlon & Heitzman, 2010). It entails shifting financial resources from the public to the private sector by exploiting legal loopholes in tax legislation, enabling firms to reduce their tax liabilities without violating the law (Khuong et al., 2020). Although legally permissible, such actions often fall into a moral and regulatory gray area, raising ethical concerns (Hanlon & Heitzman, 2010).

Moreover, while the terms "tax avoidance," "tax management," and "tax planning" are frequently used interchangeably in academic discourse due to their conceptual overlap (Duhoon & Singh, 2023), they are distinct from "tax evasion," which involves illegal practices that deliberately violate tax laws and may result in legal sanctions and reputational damage to the firm.

## 2.4 Customer Concentration

In business, customer concentration refers to a scenario in which a limited number of customers contribute to a substantial portion of a firm's total revenue. Under SFAS 14, firms are required to disclose information when any single customer accounts for more than 10% of the total sales, thereby highlighting the firm's dependence on key clients (Do et al., 2023). While such relationships can enhance revenue stability and foster long-term collaboration, they also expose firms to financial and operational risks, particularly when key partners wield significant bargaining power over pricing, payment terms, or delivery schedules (Zhu et al., 2021; Zheng et al., 2024).

From a tax avoidance perspective, customer concentration may influence managerial behavior in several ways. First, firms facing such dependency often accumulate substantial cash reserves as a buffer for the loss of major customers, thereby motivating the tax planning process to safeguard liquidity and ensure financial stability. Second, when powerful customers impose unfavorable pricing or extended payment conditions, suppliers may experience profit reductions and constrained cash flows, prompting tax avoidance measures such as transfer pricing or profit shifting to low-tax jurisdictions. Third, firms reliant on a narrow customer base frequently prioritize long-term relationship maintenance, which may require substantial financial considerations. Tax savings generated through tax avoidance can serve as a critical funding source for such strategic investments.

Therefore, customer concentration influences not only the dynamics of buyer–supplier relationships but also firms' financial management strategies, including tax behavior. This association aligns with agency theory, which emphasizes how managerial discretion in tax planning is exercised in response to the risks and opportunities arising from highly concentrated customer structures.

## 2.5 Foreign Ownership

Foreign shareholders are non-domestic investors who acquire equity in firms located abroad. Such ownership confers various rights and obligations related to firm assets and integrates the foreign investors into the company's ownership structure. This form of ownership has gained prominence in modern organizations, as foreign shareholders often exert considerable influence over corporate governance. Their nature is heterogeneous—encompassing individual investors, institutions, and corporate entities, each pursuing divergent objectives and holding varying interests in the firm (Hobdari, 2024). Notably, when institutional investors such as multinational corporations acquire at least 50% of equity, they become holding companies, rendering the investee a subsidiary. Such ownership can influence strategic decision-making and internal control mechanisms, particularly in highly competitive settings where foreign investors demand high standards of governance and operational discipline (Yi et al., 2024).

In this study, foreign ownership exclusively refers to equity held by external foreign shareholders in SET-listed firms, explicitly excluding foreign insiders (e.g., directors or executives with direct managerial authority). Accordingly, agency theory is applied here as an interpretive framework for managerial incentives in tax planning, rather than as an empirical definition of the construct.

Beyond governance effects, foreign ownership has demonstrated positive effects on firm performance (Nguyen et al., 2024). The presence of foreign investors can enhance corporate outcomes through multiple mechanisms. For example, foreign direct investment (FDI) promotes the transfer of advanced technology and managerial capabilities, potentially enhancing productivity. Moreover, FDI is associated with labor market expansion, in turn, increasing employment and wages. Improved productivity supports increased competitiveness in terms of price, product quality, and s consumer welfare.

However, foreign ownership may also produce adverse consequences. For example, increased investor-driven demand can elevate product prices. In some cases, the adoption of advanced technology may result in labor displacement and reduced job opportunities. Furthermore, an overreliance on foreign capital may undermine local economic resilience, especially when domestic firms struggle to compete or preserve control over key sectors.

## 2.6 ESG Performance

ESG performance encompasses environmental, social, and governance dimensions, collectively shaping firm value, risk, and long-term sustainability. Rau and Yu (2024) posit that ESG performance reflects the outcomes of responsible corporate conduct—significantly enhancing firm value—a concern

of growing importance to both investors and stakeholders. This view aligns with this study' framework, as ESG serves as a lens through which to examine its impact on corporate tax avoidance behavior.

Although often conflated with Corporate Social Responsibility (CSR), ESG is conceptually distinct. CSR primarily emphasizes voluntary social initiatives and is frequently criticized as a superficial image-enhancing strategy lacking long-term impact (Hanlon & Fleming, 2009). In contrast, ESG has matured into a structured, quantifiable framework widely embraced by investors and business communities (Kaźmierczak, 2022). Consequently, ESG has become a critical mechanism for evaluating corporate responsibility and its implications for financial conduct, including tax behavior.

## 2.7 Customer Concentration and Tax Avoidance

Firms exhibiting high customer concentration typically retain substantial cash reserves for two primary reasons. First, these reserves are necessary to buffer against the risk of potential customer loss due to financial distress or shifts to alternative suppliers—events that may directly affect sales, significantly disrupt cash inflows, reduce liquidity, and increase debt burdens, escalating bankruptcy risk, especially during economic downturns (Graham et al., 2025). Second, firms may retain funds to support strategic investments with key customers and major suppliers in order to sustain strong business relationships. Such cash retention practices are often associated with tax minimization strategies (Moradi et al., 2019; Cao et al., 2020).

Empirical investigations have yielded mixed findings across various national contexts. Sheybani (2018), using Iranian market share data (2006–2015), identified a positive effect of customer concentration on tax evasion. Similarly, Cao et al. (2020) examined Chinese data (2009–2014) and reported the association of increased tax evasion with high customer concentration. In a related study, Huang and Gao (2022), extending to 2009–2020 data in China, confirmed a similar positive relationship.

In contrast, Putri (2020), analyzing Indonesian firms (2014–2015), found a significantly negative relationship between customer concentration and tax evasion. This finding suggests that, in the Indonesian context, high customer concentration coincides with reduced tax evasion. Drawing on agency theory, this study contends that in Thailand—characterized by developing-country governance practices emphasizing shareholder interests over broad stakeholder concerns—managers in customer-concentrated firms tend to prioritize liquidity by maintaining substantial cash reserves to reduce uncertainty. These reserves often underpin tax planning strategies aimed at lowering tax liabilities and enhancing financial flexibility, thereby motivating firms to engage in tax avoidance practices. Accordingly, the following hypothesis is proposed:

**H1**: High customer concentration is associated with low ETR, TAX/CFO, and TAX/ASSET ratios, indicating significant tax avoidance

## 2.8 Foreign Ownership and Tax Avoidance

Foreign ownership refers to equity investments by non-citizens or foreign entities, including individuals, institutions, international investment funds, and multinational corporations. Foreign ownership share reflects the degree of influence exerted over a company's governance and strategic direction. Two primary theoretical frameworks are commonly employed for examining the relationship between foreign ownership and tax avoidance: agency theory and stakeholder theory. Prior empirical research has produced mixed evidence. Some studies report a positive relationship, consistent with agency theory, which suggests that increasing foreign ownership, particularly by strategic investors or multinational corporations, may incentivize aggressive tax planning practices, such as transfer pricing or profit shifting to low-tax jurisdictions, to maximize short-term returns (Kalra & Afzal, 2023).

However, numerous studies have identified a negative relationship, consistent with stakeholder theory. This perspective suggests that foreign investors, particularly institutional investors and international funds, prioritize governance quality and act as monitors, curbing high-risk behaviors such as aggressive tax avoidance (Hasan, Riaz, & Nakpodia, 2023). A high proportion of such ownership may, therefore, function as a governance mechanism that reduces tax avoidance and promotes value distribution to all stakeholders (Abdelkader & Gao, 2023; Wen et al., 2020; Pujiningsih & Salsabyla, 2022). In the Thai context—where capital markets favor short-term returns for investors— this study adopts the agency theory framework. Foreign investors may pressure the management to maximize after-tax net profits in the short term, supporting aggressive tax planning strategies, such as transfer pricing or income shifting. Accordingly, the following hypothesis is proposed:

**H2**: High proportion of foreign ownership is associated with low ETR, TAX/CFO, and TAX/ASSET ratios, indicating significant tax avoidance.

## 2.9 ESG Performance and Tax Avoidance

Grounded in stakeholder theory, this research frames the relationship between ESG performance and tax avoidance. This theory emphasizes the importance of maintaining a balance among all stakeholder groups by addressing three core dimensions: environmental responsibility, social responsibility, and corporate governance. The association between ESG performance and tax avoidance is viewed as an ethical and social concern, wherein a portion of the company's income should be justifiably contributed to the government to support societal wellbeing. Firms' effective ESG performance

fosters stakeholder awareness, trust, and confidence, which ultimately contributes to the firm's long-term value. Therefore, in line with stakeholder theory, it is expected that strong ESG performance is associated with reduced levels of tax avoidance.

However, empirical findings vary across countries. For instance, Daoud and Bouabdellah (2024), examining data from listed companies on the Tunisian Stock Exchange (2012–2017), found that CSR engagement correlated with reduced tax avoidance. Rashid et al. (2024), focusing on Bangladeshi banks (2012–2020), reported similar results. Du and Li (2024), using data from the Thomas Reuters EIKON database for BRICS countries (2014–2020), also observed a negative relationship between CSR performance and corporate tax avoidance. Chouaibi et al., (2022), utilizing data from the Thomson Reuters ASSET4 database for France (2010–2019), found that firms lacking CSR initiatives were more prone to tax avoidance than those that adopted CSR practices.

However, some studies reported opposing findings. For example, Yoon et al. (2021), using South Korean data (2011–2017), reported a negative relationship between ESG scores and tax evasion. Zhang & Yuan (2025). using data from Chinese-listed firms (2017–2022), identified a significantly positive relationship between a company's ESG performance and the extent of aggressive tax planning, suggesting that firms with high ESG ratings were more likely to engage in tax evasion than those with low ratings.

This study adopts the stakeholder theory interpretation: strong ESG performance reflects a commitment to balancing societal and governmental interests. ESG-driven firms regard tax obligations as both part of their social contract and a mechanism for strengthening stakeholder trust. Limited use of tax avoidance strategies, therefore, aligns well with the objectives of protecting corporate reputation and generating long-term firm value. In Thailand, companies with strong ESG performance are expected to recognize that proper tax compliance is central to their social responsibility mission. Thus, the following hypothesis is proposed:

**H3**: High ESG performance is associated with significant ETR, TAX/CFO, and TAX/ASSET ratios, indicating reduced tax avoidance.

## 2.10 The Moderating Effect of ESG Performance on Customer Concentration and Tax Avoidance

The literature suggests that customer concentration is an important factor influencing a firm's ESG performance. The repeated purchasing behavior of key customers enables more accurate sales forecasting, reduced demand variability, and improved cost and inventory management (Wang et al., 2025; Yuan & Ma, 2025). Moreover, long-term relationships with key customers compel firms to uphold social and environmental responsibility in order to meet the expectations of customers and

other stakeholders (Zerbini, 2017; Shou et al., 2020). However, high customer concentration can induce financial and liquidity pressures due to the need for substantial resources to maintain such relationships, thereby creating incentives to adopt tax avoidance strategies to increase cash flow and preserve financial stability (Moradi et al., 2019; Cao et al., 2020).

In this context, ESG performance serves as a moderating factor through two mechanisms. First, it reduces managerial incentives for tax avoidance. Firms with strong ESG commitments perceive tax compliance as part of their social responsibility and as a means of strengthening stakeholder trust. Thus, even when customer concentration intensifies financial pressure, managers are less likely to adopt aggressive tax planning strategies, as tax compliance is perceived as a signaling cost that safeguards reputation and sustains long-term business relationships. Second, ESG performance helps mitigate information asymmetry. By enhancing operational transparency, ESG disclosure enables key customers and stakeholders to better evaluate firm-specific risks. Reputational considerations deter aggressive tax avoidance practices that may damage long-term trust.

Thus, ESG performance functions as a governance mechanism: it weakens the negative relationship between customer concentration and tax avoidance by encouraging firms to redirect resources toward ESG initiatives that foster long-term organizational value and lowering managerial incentives to pursue aggressive tax strategies. This study is grounded in stakeholder theory, and the following hypothesis is proposed:

**H1A**: ESG performance weakens the negative relationship between customer concentration and tax avoidance.

## 2.11 The Moderating Effect of ESG Performance on Foreign Ownership and Tax Avoidance

According to stakeholder theory, a company's ESG performance serves as a credible signal of its accountability to all stakeholders by evidencing its commitment to environmental responsibility, social contribution, and strong corporate governance practices (Oktaviani et al., 2024). The primary objective of ESG performance is to foster long-term corporate value. Foreign shareholders, whether institutional or minority investors, are generally well-informed regarding a company's strategic policies (Roedder & Schmid, 2025). These investors possess the knowledge and resources necessary to support oversight, enhance managerial monitoring, and improve the overall effectiveness of ESG practices. Their engagement helps promote enhanced transparency in corporate disclosures, foster balanced relationships between firms and their stakeholders, discourage the pursuit of excessive short-term profits, protect the rights of all shareholders, and monitor managerial actions to prevent tax avoidance (Yoon et al., 2021).

Nevertheless, prior research indicates that foreign shareholders may, in certain contexts, pressure firms to adopt aggressive tax strategies in order to maximize short-term returns, particularly when investment horizons are limited. Thus, while foreign ownership may discourage tax avoidance when governance priorities dominate, it can also promote opportunism under conditions favoring immediate financial gain. In this regard, ESG performance functions as a moderating mechanism that aligns corporate strategies with broad stakeholder expectations. Strong ESG performance reinforces the perspective that fair tax payment is part of a firm's social responsibility, thereby constraining pressures from opportunistic shareholders and prioritizing sustainable value creation over short-term tax savings.

In essence, ESG performance mitigates the negative association between foreign ownership and tax avoidance by ensuring that foreign investor influence does not inherently equate to superior governance outcomes. Firms with high ESG commitment are less likely to permit short-term shareholder interests to override overall stakeholder responsibilities. This study employs stakeholder theory to assert that companies with strong ESG practices regard tax compliance as a key dimension of their social responsibility and prioritize balancing the interests of all stakeholders. Engaging in aggressive tax avoidance undercuts reputational capital and long-term value. Consequently, firms with strong ESG performance are highly likely to limit their tax avoidance behavior. Based on this reasoning, the following hypothesis is proposed:

**H2A**: ESG performance weakens the negative relationship between the proportion of foreign ownership and tax avoidance.

### 2.12 Conceptual Framework

Figure 1 illustrates the conceptual framework of this study, which investigates the interactions among four primary categories of variables. The independent variables are customer concentration and foreign ownership, while ESG performance serves as the moderating variable. The dependent variable is tax avoidance, operationalized through three proxies: ETR, TAX/CFO, and TAX/ASSET. Control variables include firm size, financial leverage, return on assets (ROA), and industry type.

Based on the agency theory and evidence from prior research, most studies suggest that customer concentration (Sheybani, 2018; Cao et al., 2020; Huang & Gao, 2022) and foreign ownership (Abdelkader & Gao, 2023; Wen et al., 2020; Pujiningsih & Salsabyla, 2022) have a significant influence on tax avoidance. In contrast, drawing on the stakeholder theory, existing studies indicate that ESG performance (Daoud & Bouabdellah, 2024; Rashid et al., 2024; Du & Li, 2024; Chouaibi et al., 2022) plays a mitigating role in reducing tax avoidance. Accordingly, the researchers developed a conceptual framework to illustrate these theoretical relationships, as shown in Figure 1.
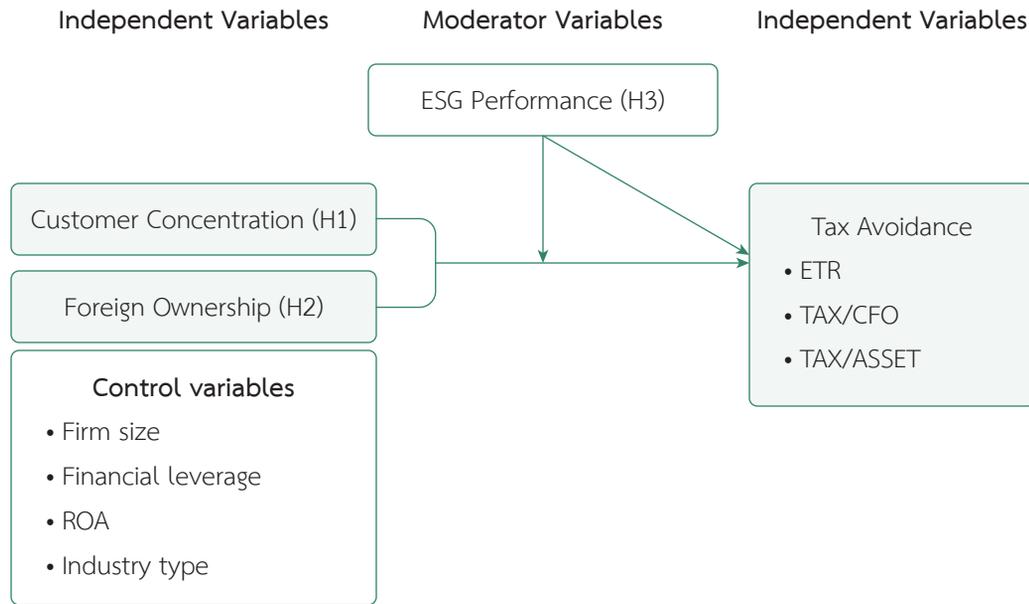
Independent Variables    Moderator Variables    Independent Variables



**Figure 1** Conceptual Framework

## 3. RESEARCH METHODOLOGY

### 3.1 Sample Selection and Data Collection

This study adopts the sample selection methodology established by Beaver (1972). The population comprises companies listed on the SET that reported operating results over a five-year period (2020–2024). The selection of SET100 companies reflects their attractiveness to both institutional and foreign investors. Moreover, these firms have been encouraged by the SET to enhance transparency through the 56-1 One Report (SEC, 2020), a trend that has continued to gain momentum. The selected period also coincides with the post-COVID-29 economic recovery, providing a meaningful context for examining the role of ESG performance in shaping tax avoidance behaviors.

The final sample consists of 133 companies, representing 665 firm-year observations, selected based on criteria established by the researcher. These criteria ensured consistency in historical data reporting and the availability of the required financial and ESG information. Table 1 presents a detailed breakdown of the sample selection process.

**Table 1** Presents the Sample Size in Firm-Year Observations

<div align="right">

**Unit**: Firm-Year Observations
</div>

| Sample Selection | | Total |
|---|---|---|
| SET100 Companies as of December 31, 2024 | | 670 |
| Less | Observations from companies in the banking, capital markets and securities, life insurance, and real estate fund sectors | (109) |
| Less | Observations from companies with incomplete data for the five-year period or classified as outliers* | (140) |
| | Observations from companies with pre-tax losses | (288) |
| Final number of companies included in the study | | 133 |
| Total firm-year observations over the five-year period (2020–2024) | | 665 |

**\*Note**: Outliers include companies with untraceable data and those that commenced trading (IPO) after January 1, 2020.

The regression analysis of the sample data revealed the presence of outliers that could potentially distort the relationship between the dependent and independent variables. To address this issue, the researcher employed the trimmed means method, excluding the top and bottom 1% of values for each variable (Walfish, 2006). However, this process introduced missing values, which could compromise the accuracy and completeness of the dataset. To mitigate this issue, mean imputation was applied to estimate the missing data points, following the recommendations of Little and Rubin (2002) and consistent with the approach of Pipatnarapong et al. (2024).

### 3.2 Variables and Measurement

This section provides a comprehensive overview of the variables employed in this study, including their conceptual definitions and measurement approaches. The dependent, independent, and control variables are operationalized based on established empirical literature to ensure the consistency, validity, and robustness of the analytical framework.

The variables utilized in this study are presented with reference to their theoretical underpinnings and measurement methods, as outlined in the following sections.

**Dependent Variable**: Tax planning is measured using three commonly applied proxies for tax avoidance: the effective tax rate (ETR), the ratio of corporate income tax to cash flow from operating activities (TAX/CFO), and the ratio of corporate income tax to total assets (TAX/ASSET). These measures are described as follows:

**Measures of Tax Avoidance**

Tax avoidance is assessed through measures derived from financial data disclosed in firms' annual reports. It is generally classified into two categories: (1) book–tax nonconforming tax planning and (2) book–tax conforming tax planning (Aronmwan & Okafor, 2019; Temboonprasertsuk, 2021; Thunputtadom et al., 2024).

- Book–tax nonconforming tax planning involves minimizing taxable income without affecting accounting profit. It typically results in increased reported net income and cash flow from operating activities, alongside elevated tax expense. It reflects discrepancies between accounting income and taxable income. The metric is calculated as follows:

$$\text{Effective Tax Rate (ETR)} = \frac{\text{total tax expense}}{\text{pre-tax income}}$$

The interpretation is as follows: The effective tax rate (ETR) is evaluated against the statutory tax rate (STR), which is determined by the government or tax authority. In Thailand, the current statutory corporate income tax rate constitutes 20% of net profits. An ETR that is lower than the STR is reflective of tax planning or tax avoidance, whereas an ETR close to the STR indicates compliance with tax regulations. Conversely, an ETR that is higher than the STR is often attributable to non-deductible expenses or deferred tax, reflecting constraints in tax management.

- Book-tax conforming tax planning focuses on simultaneously reducing both net taxable income and net accounting income. This strategy leads to a decrease in tax expenses in the form of cash outflows, thereby enhancing cash flow from operating activities. It can be measured in two ways: (1) using cash flow from operating activities, which is not influenced by accounting earnings manipulation (earnings management), and (2) using total assets, the value of which can serve as a proxy for the firm's actual income-generating capacity. Tax expenditures are commonly associated with cash flows from operations and the scale of the firm's asset base. The corresponding formulas for calculation are as follows:

$$\text{Cash flow of operation case} = \frac{\text{tax expense}}{\text{cash flow of operation}}$$

$$\text{Total asset case } = \frac{\text{tax expense}}{\text{total asset}}$$

The interpretation is as follows: Book–tax conforming tax avoidance is measured by comparing TAX/CFO and TAX/ASSET values against either industry benchmarks or a firm's historical values. Values below the benchmark indicate intensive and highly effective tax avoidance, as the firm successfully minimizes its actual tax burden. Conversely, values above the benchmark suggest less effective tax planning and a comparatively high tax burden.

**The Independent Variables**: Customer Concentration and Foreign Ownership

**- Customer concentration** is measured using the customer concentration ratio (CR), following the methodology proposed by Pearson and Trompeter (1994). Specifically, the concentration level within each industry is calculated as the cumulative market share of the top three firms, relative to the total sales of all firms operating within the same industry. The formula is expressed as follows:

$$CR_{kt} = \frac{\sum_{i=1}^{3} S_{it}}{\sum_{i=1}^{n} S_{it}}$$

Where **CR** represents the concentration of firms in industry *k* in year *t*

**s** indicates the total sales of the top three firms in industry *k* in year *t*

**S** depicts the total sales of all firms in industry *k* in year *t*

**- Foreign ownership** is defined as the proportion of outstanding shares held by foreign shareholders who are not classified as insiders (e.g., executive directors). This measure excludes foreign board members or executives directly involved in managerial decision-making. Foreign ownership is measured as follows:

$$\text{Foreign ownership } = \frac{\text{shares held by foreign ownership investors}}{\text{total outstanding shares}}$$

It can be interpreted as follows: A higher level of customer concentration, relative to industry or firm-specific benchmarks, reflects significant dependence on key customers and increased liquidity risk, which may incentivize tax avoidance. In contrast, low customer concentration indicates a diversified customer base, thereby reducing such motivations. Similarly, a high level of foreign ownership signifies strong pressure from foreign shareholders, potentially encouraging tax avoidance even under robust

governance. Conversely, a low level of foreign ownership suggests a reliance on domestic shareholders, which may decrease incentives for tax avoidance but elevate the risk of weak governance.

### Moderator variable

ESG performance

Since 2015, the SET has introduced the € list to recognize listed companies that integrate ESG considerations into their operations, thereby providing investors with the information required to support their investment decisions. In 2023, the SET renamed this initiative the *SET ESG Ratings Sustainable Stocks* and, for the first time, published assessment results in the form of ESG ratings. These ratings are based on companies that voluntarily participated in the SET's annual Sustainability Assessment Questionnaire, covering key issues across four dimensions: environmental, social, governance, and economic.

This study measures ESG performance using the ESG Rating based on the evaluation methodology adopted by the SET (2025) for selecting companies for the sustainable stock list. The assessment process comprises three steps, which are listed below:

**Step 1**: Assessment of ESG performance based on the company's ESG disclosure report, which includes the following components:

Environment (E): Greenhouse gas management

Social (S): Workforce composition by gender; employee compensation

Governance (G): Board remuneration; executive compensation

**Step 2**: ESG Composite Score

The calculation formula is as follows:

ESG Rating = $(E \times w_E) + (S \times w_S) + (G \times w_G)$

Here, E, S, and G represent the scores obtained in each category (out of 100), and $w_E$, $w_S$, and $w_G$ are the weights assigned to each component, with E = 25%, S = 25%, and G = 50%.

**Step 3: Conversion of ESG Ratings into Numerical Scores**

ESG performance ratings are converted into numerical values using the following criteria:

| Score | Range | Median Value | Rating Description |
|---|---|---|---|
| 4 | 90–100 | 95 | Excellent |
| 3 | 80–89 | 85 | Very good |
| 2 | 70–79 | 75 | Moderate |
| 1 | 60–69 | 65 | Below moderate (Weak) |
| 0 | 0–50 | 50 | Poor |

### Control Variable

This study incorporates firm-level characteristics as control variables, including firm size (Hossain et al., 2024), financial leverage (Hossain et al., 2024), ROA (Dakhli, 2022), and industry type (Mnif & Tahri, 2024), as these factors have been shown to influence tax avoidance.

A summary of variable measurements is presented in Table 2

**Table 2** Variables Measures

| Variable | Acronym | Measurement | Authors |
|---|---|---|---|
| **Independent Variables** | | | |
| Tax avoidance | ETR | Tax avoidance refers to the total tax expense/Pre-tax income. | Aronmwan and Okafor, 2019; Thunputtadom et al, 2024 |
| | TAX/CFO | Tax avoidance refers to the total tax expense/cash flow of the operation. | Aronmwan and Okafor, 2019; Thunputtadom et al, 2024 |
| | TAX/ASSET | Tax avoidance refers to the total tax expense/total asset. | Aronmwan and Okafor, 2019; Thunputtadom et al, 2024) |
| **Moderator variable** | | | |
| ESG performance | ESG rating | ESG performance score assigned by SET; numerical values from 1 (lowest) to 4 (highest) | Moolkham, 2025; Benyasrisawat, 2025 |
| **Dependent Variables** | | | |
| Customer concentration | CR | Refer to $\dfrac{\sum_{i=1}^{3} S_{it}}{\sum_{i=1}^{n} S_{it}}$ | Bungkilo and Chanaklang, 2020; Cao et al.2020; Huang and Gao, 2022 |
| Foreign ownership | FO | FO refers to shares held by foreign investors/total outstanding shares. | Suranta et al., 2020; Alkurdi and Mardini, 2020; Prayitno and Oktris, 2023 |

**Table 2** Variables Measures (Cont.)

| Variable | Acronym | Measurement | Authors |
|---|---|---|---|
| Control Variables | | | |
| Firm size | FS | FS is represented by the natural logarithm of total assets | Riguen et al., 2021; Dakhli, 2022; Hossain et al, 2024 |
| Financial leverage | LEV | LEV refers to total debt/total assets | Ongsakul et al., 2025; Dakhli, 2022; Hossain et al, 2024 |
| Return of asset | ROA | ROA refers to pre-tax income/ total assets | Rahman and Leqi, 2021; Dakhli, 2022; Thunputtadom et al, 2024) |
| Industry type | In_dust | The dummy variable is equal to 1 when firm i is of industry type and 0 otherwise. | Dakhli, 2022; Thunputtadom et al., 2024 |

### 3.3 Research Model

Prior to conducting regression analysis, preliminary tests were performed to assess data quality and model adequacy. These tests included examinations of data dispersion and multicollinearity using the variance inflation factor (VIF), ensuring the reliability of the estimation results (Gujarati & Porter, 2009; Wooldridge, 2016). Additionally, the study examined the role of ESG performance as a moderating variable that may influence the relationship between customer concentration, foreign ownership, and tax avoidance. Interaction analysis was conducted following the approaches of Baron and Kenny (1986) and Aiken and West (1991). This study employs multiple regression analysis (MRA) using the ordinary least squares (OLS) method to estimate values for testing the following research hypotheses, as follows:

### Model 1 – Model 3

$$ETR = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 FS + \beta_5 LEV + \beta_6 ROA$$
$$+ \sum_{n=1}^{6} \beta_7 Industry + \varepsilon_{it} \dots\dots\dots(Model\ 1)$$

$$TAX/CFO = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 FS + \beta_5 LEV + \beta_6 ROA$$
$$+ \sum_{n=1}^{6} \beta_7 Industry + \varepsilon_{it} \dots\dots\dots(Model\ 2)$$

$$TAX/ASSET = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 FS + \beta_5 LEV + \beta_6 ROA$$
$$+ \sum_{n=1}^{6} \beta_7 Industry + \varepsilon_{it} \dots\dots\dots(Model\ 3)$$

Model 4 – Model 6

$$ETR = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 CR*ESG\ Rating + \beta_5 FO*ESG\ Rating$$
$$+ \beta_6 FS + \beta_7 LEV + \beta_8 ROA + \sum_{n=1}^{6} \beta_9 Industry + \varepsilon_{it} \ \dots\dots\dots\dots\dots\dots\dots\dots\text{(Model 4)}$$

$$TAX/CFO = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 CR*ESG\ Rating + \beta_5 FO*ESG\ Rating$$
$$+ \beta_6 FS + \beta_7 LEV + \beta_8 ROA + \sum_{n=1}^{6} \beta_9 Industry + \varepsilon_{it} \ \dots\dots\dots\dots\dots\dots\dots\text{(Model 5)}$$

$$TAX/ASSET = \alpha_1 + \beta_1 CR + \beta_2 FO + \beta_3 ESG\ Rating + \beta_4 CR*ESG\ Rating + \beta_5 FO*ESG\ Rating$$
$$+ \beta_6 FS + \beta_7 LEV + \beta_8 ROA + \sum_{n=1}^{6} \beta_9 Industry + \varepsilon_{it} \ \dots\dots\dots\dots\dots\dots\dots\text{(Model 6)}$$

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

Table 3 Results of the Descriptive Statistical Analysis

| Variables | N | Minimum | Maximum | Mean | STD |
|---|---|---|---|---|---|
| Panel A: Continuous Variables | | | | | |
| ETR | 665 | .02 | 85.46 | 16.56 | 9.72 |
| TAX/CFO | 665 | .00 | 84.81 | 9.20 | 11.78 |
| TAX/ASSET | 665 | .00 | 3.64 | .43 | .43 |
| ESG rating | 665 | .00 | 4.00 | .77 | 1.44 |
| CR | 665 | .02 | 33.20 | 2.87 | 4.08 |
| FO | 665 | .00 | 87.87 | 14.17 | 18.92 |
| FS | 665 | 13.25 | 20.69 | 16.07 | 1.44 |
| LEV | 665 | .60 | 89.13 | 38.29 | 19.84 |
| ROA | 665 | 13.25 | 20.69 | 16.07 | 1.44 |

**Table 3** Results of the Descriptive Statistical Analysis (Cont.)

| Variables | N | Minimum | Maximum | Mean | STD |
|---|---|---|---|---|---|
| Panel B: Discrete Variable | | Dummy = 1 | Dummy = 0 | % of 1 | Rating |
| Argo and the food industry (Indust 1) | 665 | 98 | 567 | 14.70 | 3 |
| Consumer products (In_ dust 2) | 665 | 25 | 640 | 3.80 | 7 |
| Industrials sector (In_ dust 3) | 665 | 95 | 570 | 14.30 | 4 |
| Property and construction (In_ dust 4) | 665 | 144 | 521 | 21.70 | 2 |
| Resource (In_ dust 5) | 665 | 58 | 606 | 8.70 | 6 |
| Service (In_ dust 6) | 665 | 174 | 491 | 26.20 | 1 |
| Technology (In_ dust 7) | 665 | 71 | 594 | 10.70 | 5 |

**Table 3** presents the descriptive statistical analysis of the dependent, independent, and moderating variables. The dependent variable reflects tax avoidance behavior, measured through three proxies: **ETR**, **TAX/CFO**, and **TAX/ASSET**. The mean values of these indicators are 16.56, 9.20, and 0.4312, respectively. These results suggest that the firms listed on the SET tend to engage in tax avoidance primarily through strategies that reduce taxable income without significantly affecting accounting income, as evidenced by the greater reliance on the ETR measure compared to TAX/CFO and TAX/ASSET. Specifically, the mean ETR is 16.56%, with a minimum of 0.02% and a maximum of 85.46%, indicating that some firms in the sample bear a minimal tax burden, while others are subject to substantially higher tax rates. The TAX/CFO ratio shows a mean of 9.20%, ranging from 0.00% to 84.81%, reflecting variations in cash flow management practices, budgeting policies, and tax deferral strategies, depending on the firm's operational context. For TAX/ASSET, the mean value is 0.43%, with a minimum of 0.00% and a maximum of 3.64%, suggesting that the proportion of taxes paid relative to total assets remains relatively low across the sample. These descriptive statistics demonstrate notable variation across the three tax avoidance measures, both over time and across firms. The findings align with earlier studies by Hanlon and Heitzman (2010), Badertscher et al. (2018), and Drake et al. (2020), reiterating the multifaceted nature of tax avoidance in corporate settings.

For ESG performance, which serves as the moderating variable and is proxied by the ESG rating score, the minimum value is 0.00 and the maximum value is 4.00, with a mean score of 0.77. This result indicates that most firms in the sample have relatively low ESG scores, suggesting that they

are still in the early stages of ESG adoption or are in the process of developing comprehensive sustainability strategies.

The independent variables in this study include customer concentration and foreign ownership. Customer concentration is measured as the proportion of a company's revenue derived from a small number of major customers. The minimum observed value is 0.02%, the maximum is 33.20%, and the mean is 2.87%. An analysis of the distribution reveals substantial variation among firms, indicating that while some companies have a well-diversified customer base, others are heavily dependent on a limited number of key customers. This reliance reflects differences in customer bargaining power and underscores potential risks associated with revenue concentration and earnings management.

Foreign ownership is measured as the proportion of shares held by foreign investors relative to total outstanding shares. The observed values range from a minimum of 0.00% to a maximum of 87.87%, with a mean of 14.17%. These results indicate that some firms have no foreign shareholding, whereas others possess a significantly high proportion. However, considering the mean and overall distribution, foreign ownership appears to be moderate, reflecting the heterogeneous nature of foreign investor participation and suggesting that companies listed on the SET vary in how they are perceived in terms of attractiveness and credibility by foreign investors.

The control variables include firm size (FS), financial leverage (LEV), and return on assets (ROA). Firm size is measured using the natural logarithm of the total assets. The minimum value is 13.25, the maximum is 20.69, and the mean is 16.07. These values reflect substantial variation, indicating differences in organizational scale and resource capacity among the firms. Financial leverage, calculated as the ratio of total debt to total assets, ranges from 0.60% to 89.13%, with a mean of 38.29%. These figures indicate significant variation in capital structures and financial risk. In addition, ROA, as an indicator of firm profitability, ranges from -2.50% to 20.69%, with a mean of 5.47%, suggesting notable differences in firm performance across the sample.

Regarding the control variable for industry type, the services sector (In_dust 6) accounted for the highest number of firms, with 174 firm-year observations, representing 26.20% of the total sample and ranking first. It was followed by the property and construction sector (In_dust 4), comprising 144 firm-year observations (21.70%), ranking second, and the industrials sector (In_dust 3), with 98 firm-year observations (14.70%), ranking third. The agro and food Industry (In_dust 1) ranked fourth with 95 firm-year observations (14.30%), followed by the technology sector (In_dust 7) with 71 firm-year observations (10.70%), ranking fifth. The resources sector (In_dust 5) included 58 firm-year observations (8.70%), ranking sixth, while the consumer products sector (In_dust 2) had the lowest representation, with 25 firm-year observations (3.80%), ranking seventh.

## 4.2 Correlation Results

**Table 4** Pearson's Correlation Matrix

| Variables | ETR | TAX/CFO | TAX/ASSET | CR | FO | ESG Rating | CR∗ESG Rating | FO∗ESG Rating | FS | LEV | ROA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ETR | 1 | | | | | | | | | | |
| TAX/ASSET | .163** | 1 | | | | | | | | | |
| TAX/CFO | .249** | .224** | 1 | | | | | | | | |
| CR | −.054 | −.078* | −.079* | 1 | | | | | | | |
| FO | −.111** | −.010 | −.088* | .107** | 1 | | | | | | |
| ESG Rating | −.105** | −.022 | −.005 | .235** | .115** | 1 | | | | | |
| CR∗ESG Rating | −.048 | −.028 | −.042 | .619** | .143** | .624** | 1 | | | | |
| FO∗ESG Rating | −.167** | −.051 | −.042 | .263** | .356** | .718** | .568** | 1 | | | |
| FS | −.018 | .009 | −.117** | .407** | .090* | .494** | .417** | .392** | 1 | | |
| LEV | −.053 | −.020 | −.169** | .106** | .100** | .202** | .184** | .158** | .325** | 1 | |
| ROA | .021 | .271** | .515** | −.087* | −.063 | .097* | .040 | .077* | −.097* | −.162** | 1 |

Table 4 presents the Pearson correlation coefficients among the variables included in the model. This analysis assesses whether the independent variables are highly correlated, which could lead to multicollinearity. The results show that the correlation coefficients between pairs of independent variables range from 0.169 to 0.718—all below the accepted threshold of 0.90. Therefore, multicollinearity is not a concern in this study (Hair et al., 2010). This conclusion is further supported by the VIF values from the multiple regression models illustrated in Tables 5 and 6. The highest observed VIF value is 2.937, well below the threshold of 8, indicating an acceptable level of multicollinearity among the independent variables (Black, 2010).

## 4.3 Analysis of the Results for Hypothesis Testing

**Table 5** Results of Multiple Linear Regression Analysis: Customer Concentration, Foreign Ownership, ESG Performance, and Tax Avoidance

| Variable | Model 1 (ETR) | | | Model 2 (TAX/CFO) | | | Model 3 (TAX/ASSET) | | |
|---|---|---|---|---|---|---|---|---|---|
| | b | beta | t_Value | b | beta | t_Value | b | beta | t_Value |
| (Constant) | 9.710 | | 1.906 | −8.672 | | −1.448 | .357 | | 1.827 |
| CR | −.103 | −.043 | −1.023 | −.227 | −.079 | −1.921* | −.001 | −.007 | −.188 |
| FO | −.049 | −.095 | −2.433** | .010 | .016 | .424 | −.001 | −.044 | .193 |
| ESG Rating | −.797 | −.119 | −2.626*** | −.721 | −.089 | −2.021** | −.005 | −.018 | −.457 |
| FS | .548 | .081 | 1.661* | .864 | .106 | 2.227** | −.009 | −.069 | −.730 |
| LEV | −.018 | −.037 | −.894 | .010 | .016 | .411 | −.002 | .499 | −1.942* |
| ROA | .035 | .025 | .619 | .494 | .286 | 7.427*** | .032 | −.031 | 14.565*** |
| Industry | yes | | | yes | | | yes | | |
| F-stat | 2.970 | | | 10.326 | | | 42.021 | | |
| Adj. R2 | 0.017 | | | 0.078 | | | 0.270 | | |
| Max-VIF | 1.622 | | | 1.622 | | | 1.622 | | |
| Durbin-Watson | 2.057 | | | 1.851 | | | 1.966 | | |
| n | 665 | | | 665 | | | 665 | | |

**Note**: * p-value < 0.10, ** p-value < 0.05, *** p-value < 0.01

Table 5 presents the results of the regression analysis examining the relationship between customer concentration, foreign ownership, and tax avoidance, as measured by three proxies: ETR, TAX/CFO, and TAX/ASSET. The findings can be interpreted as follows: Low values of ETR, TAX/CFO, and TAX/ASSET indicate high levels of tax avoidance, as they reflect a smaller proportion of taxes paid relative to profits, cash flows, or assets. In contrast, high values suggest low tax avoidance, implying the payment of a greater proportion of taxes.

The results reveal no significant relationship between customer concentration and ETR or TAX/ASSET. However, a significant negative relationship is found between customer concentration and TAX/CFO ($\beta_1 = -0.227$, p = 0.055), These findings indicate that high customer concentration is associated with low tax avoidance. Specifically, firms with more concentrated customer bases tend to pay less tax relative to their operational cash flows, consistent with greater tax avoidance behavior.

This result aligns with the findings of Sheybani (2018), Cao et al. (2020), and Huang and Gao (2022), which suggest that firms with high customer concentration tend to maintain substantial cash reserves to hedge against risks posed by key customers. Thus, this study provides empirical support for **Hypothesis H1**, which posited that H1: High customer concentration is associated with low ETR, TAX/CFO, and TAX/ASSET ratios, indicating significant tax avoidance.

Foreign ownership is negatively associated with TAX/CFO and positively associated with TAX/ASSET; however, neither relationship is statistically significant. In contrast, a significant negative relationship is observed between foreign ownership and ETR ($\beta_2 = -0.049$, $p = 0.015 < 0.05$). These results suggest that firms with a higher proportion of foreign shareholders are more likely to engage in tax avoidance, as evidenced by the low ETRs. A reduced ETR indicates minimized tax payments, signaling higher tax avoidance. Foreign investors may exert pressure to enhance firm efficiency by reducing tax-related costs and increasing cash flows. Accordingly, firms with substantial foreign ownership may be more inclined to adopt proactive tax planning strategies to maximize shareholder value (Suranta et al., 2020; Alkurdi & Mardini, 2020; Prayitno et al., 2023). Therefore, these findings support **Hypothesis H2**: High proportion of foreign ownership is associated with low ETR, TAX/CFO, and TAX/ASSET ratios, indicating significant tax avoidance

Regarding ESG performance, a negative but statistically insignificant relationship is observed with TAX/ASSET. Conversely, ESG performance exhibits a statistically significant negative association with both ETR ($\beta_3 = -0.797$, $p = 0.009 < 0.01$) and TAX/CFO ($\beta_3 = -0.721$, $p = 0.044 < 0.05$). These findings imply that firms with strong ESG performance tend to exhibit lower ETRs relative to their tax burden and operational cash flows, indicating a strong propensity toward tax avoidance behavior (Zhang et al., 2021; Okuyama et al., 2025; Rakhmayani et al., 2025). Such results highlight a potential contradiction between ESG-oriented corporate practices and the normative expectations of stakeholder theory, which expects firms with strong ESG commitments to demonstrate ethical tax compliance and transparency. Thus, the empirical evidence does not support **Hypothesis H3**: Firms with high ESG performance will exhibit significant ETR, TAX/CFO, and TAX/ASSET ratios, indicating reduced levels of tax avoidance.

The study reveals that the variations in tax avoidance measurement results across the three indicators arise from the inherent characteristics of each measure. Specifically, ETR and TAX/CFO are more sensitive to shareholder structure and corporate governance mechanisms that directly influence profit and cash flow levels, reflecting short-term financial outcomes. In contrast, TAX/ASSET serves as a structural indicator representing an organization's long-term tax strategy and, therefore, may not adequately capture short-term variations. Likewise, ETR and TAX/CFO reflect the immediate financial effects of ESG performance on profit and cash flow, which are highly responsive to changes in

governance and operational practices. By comparison, TAX/ASSET indicates the long-term tax burden relative to total assets and tends to exhibit weaker statistical significance in the short run.

With regard to the control variables, firm size shows a positive relationship with both ETR ($\beta_4 = 0.548$, p = 0.097 < 0.10) and TAX/CFO ($\beta_4 = 0.864$, p = 0.026 < 0.05). ROA is significantly positively associated with both TAX/CFO ($\beta_6 = 0.494$, p = 0.000 < 0.001) and TAX/ASSET ($\beta_6 = 0.032$, p = 0.000 < 0.001). These results suggest that larger firms are more capable of managing taxes strategically—given their access to resources and specialized tax expertise—than smaller firms (Dakhli, 2022; Hossain et al., 2024). Similarly, highly profitable firms are very likely to engage in tax avoidance, as they possess strong incentives to minimize tax liabilities in order to enhance net income and maximize shareholder returns (Dakhli, 2022; Suhada & Ryanto, 2025).

**Table 6** Results of the Multiple Linear Regression Analysis: The Moderating Effect of ESG Performance

| Variable | Model 4 (ETR) | | | Model 5 (TAX/CFO) | | | Model 6 (TAX/ASSET) | | |
|---|---|---|---|---|---|---|---|---|---|
| | b | beta | t_Value | b | beta | t_Value | b | beta | t_Value |
| (Constant) | 8.595 | | 1.695 | −9.411 | | −1.570 | .348 | | 1.774 |
| CR | −.237 | −.100 | −1.872* | −.295 | −.102 | −1.969** | .001 | .013 | .272 |
| FO | −.025 | −.049 | −1.172 | .027 | .043 | 1.051 | −.001 | −.026 | −.703 |
| ESG Rating | −.462 | −.069 | −1.053 | −.408 | −.050 | −.785 | .011 | .038 | .671 |
| CR*ESG Rating | .123 | .135 | 2.120** | .067 | .061 | .974 | −.001 | −.028 | −.511 |
| FO*ESG Rating | −.048 | −.182 | −2.974*** | −.034 | −.106 | −1.778* | −.001 | −.063 | −1.183 |
| FS | .628 | .093 | 1.909* | .911 | .111 | 2.341** | −.009 | .013 | −.742 |
| LEV | −.022 | −.045 | −1.106 | .007 | .012 | .308 | −.001 | −.068 | −1.918 |
| ROA | .037 | .026 | .659 | .497 | .288 | 7.455*** | .032 | .503 | 14.620*** |
| Industry | yes | | | yes | | | yes | | |
| F-stat | 3.707 | | | 8.218 | | | 31.750 | | |
| Adj. R2 | 0.032 | | | 0.080 | | | 0.270 | | |
| Max-VIF | 2.937 | | | 2.937 | | | 2.937 | | |
| Durbin-Watson | 2.050 | | | 1.843 | | | 1.967 | | |
| n | 655 | | | 655 | | | 655 | | |

**Note**: * p-value < 0.10, ** p-value < 0.05, *** p-value < 0.01

Table 6 presents the results of the analysis examining the moderating effect of ESG performance on the relationship between customer concentration, foreign ownership, and corporate tax avoidance. The findings reveal that the interaction between ESG performance and customer concentration is positively but not significantly associated with both the TAX/CFO and TAX/ASSET indicators. However, a statistically significant positive relationship is observed between customer concentration and the ETR when moderated by ESG rating ($\beta_4 = 0.123$, $p = 0.034 < 0.05$). These results suggest that ESG performance plays a mitigating role in the link between customer concentration and tax avoidance. Specifically, a high ETR indicates a large tax burden and, thus, low tax avoidance. In this context, firms with strong ESG performance exhibit a weak association between customer concentration and tax avoidance behavior.

Overall, the findings imply that the influence of customer concentration on tax avoidance is attenuated when firms adopt tax strategies aligned with ESG principles (Yoon et al., 2021; Du & Li, 2022; Chouaibi et al., 2022; Daoud & Bouabdellah, 2024; Rashid et al., 2024). Therefore, **Hypothesis H1A** is supported: H1A: ESG performance weakens the negative relationship between customer concentration and tax avoidance.

The results reveal an inconsistency between Tables 5 and 6. In Table 5, customer concentration exhibits a statistically significant negative association with TAX/CFO. However, this relationship becomes insignificant after incorporating ESG variables into the model. Meanwhile, ESG demonstrates a significant moderating effect on ETR. This finding is consistent with the principle of moderated regression analysis, which suggests that when the direct effect of an independent variable (IV) loses statistical significance after the inclusion of a moderating variable, the relationship between the IV and the dependent variable (DV) becomes conditional on the moderator's level. In other words, the relationship does not disappear but varies depending on the degree of ESG performance. Specifically, the results indicate that customer concentration influences tax avoidance when ESG performance is low, whereas this effect weakens or disappears when ESG performance is high. This outcome implies that ESG plays a crucial moderating role in shaping the relationship between customer concentration and tax avoidance behavior. In other words, strong ESG engagement promotes greater transparency and ethical tax practices, thereby significantly mitigating the influence of customer concentration on corporate tax avoidance. These findings provide empirical support for the moderating effect hypothesis, suggesting that ESG performance can attenuate firms' incentives to avoid taxes under conditions of high customer concentration.

In contrast, the moderating effect of ESG performance on the relationship between foreign ownership and tax avoidance shows a negative but statistically insignificant interaction with TAX/ASSET. However, statistically significant negative interactions are observed with both ETR and TAX/CFO ($\beta_5 = -0.048$, p = 0.003 < 0.01; $\beta_5 = -0.034$, p = 0.076 < 0.10). The results suggest that ESG performance intensifies the negative relationship between foreign ownership and tax avoidance. In other words, low ETR and TAX/CFO values imply reduced tax payments, which indicate increased tax avoidance. Thus, for firms with high foreign ownership, strong ESG performance does not mitigate tax avoidance; instead, the tendency to avoid taxes appears to become more pronounced. This phenomenon may reflect the cost pressures imposed by foreign investors or the strategic use of ESG initiatives as symbolic tools to enhance corporate reputation, rather than as indicators of genuine ESG practices (Wen et al., 2020; Pujiningsih & Salsabyla, 2022; Alregab, 2022; Abdelkader & Gao, 2023). Therefore, the findings do **not support Hypothesis H2A**: ESG performance weakens the negative relationship between the proportion of foreign ownership and tax avoidance.

Moreover, the results point to further inconsistencies between Tables 5 and 6. In Table 5, foreign shareholding shows a significant negative relationship with ETR but not with TAX/CFO or TAX/ASSET. However, when ESG performance is introduced as a moderating variable in Table 6, significant negative associations emerge with both ETR and TAX/CFO, while the relationship with TAX/ASSET remains insignificant. This inconsistency may be explained by differences in the sensitivities of the indicators: ETR and TAX/CFO are more directly influenced by governance and ESG-related practices, whereas TAX/ASSET reflects longer-term structural factors and is relatively insensitive to short-term regulatory influences.

## 4.4 Robustness Test

**Table 7** Results of the Multiple Linear Regression Analysis: The Moderating Effect of ESG Performance

| Variable | Model 7 (ETR) | | | Model 8 (TAX/ASSET) | | | Model 9 (TAX/CFO) | | |
|---|---|---|---|---|---|---|---|---|---|
| | b | beta | t_Value | b | beta | t_Value | b | beta | t_Value |
| (Constant) | 8.372 | | 1.634 | −8.653 | | −1.427 | .316 | | 1.596 |
| CR | −.268 | −.113 | −2.122*** | −.352 | −.122 | −2.352*** | .001 | .009 | .189 |
| FO | −.029 | −.057 | −1.362 | .016 | −.026 | .642 | −.001 | −.028 | −.772 |
| ESG Rating | −2.262 | −.101 | −1.526 | −2.471 | −.091 | −1.409 | .011 | .011 | .200 |
| CR*ESG Rating | .479 | .165 | 2.477*** | .331 | −094 | 1.445 | −.003 | −.021 | −.368 |
| FO*ESG Rating | −.133 | −.165 | −2.630*** | −.053 | −.054 | −.883 | −.002 | −.051 | −.948 |
| FS | .660 | .098 | 1.979*** | .887 | .109 | 2.248*** | −.007 | −.024 | −.552 |
| LEV | −.025 | −.052 | −1.259 | .005 | .008 | .211 | −.002 | −.070 | −1.972*** |
| ROA | .032 | .022 | .563 | .486 | .282 | 7.301*** | .032 | .504 | 14.677*** |
| Industry | yes | | | yes | | | yes | | |
| F-stat | 3.557 | | | 7.811 | | | 31.751 | | |
| Adj. R2 | 0.042 | | | 0.077 | | | 0.270 | | |
| Max-VIF | 3.035 | | | 3.035 | | | 3.035 | | |
| Durbin-Watson | 2.055 | | | 1.848 | | | 1.971 | | |
| n | 655 | | | 655 | | | 665 | | |

**Note**: * p-value < 0.10, ** p-value < 0.05, *** p-value < 0.01

Table 7 presents the robustness test for the primary findings. To examine whether the moderating role of ESG performance remains consistent under alternative specifications, the ESG rating used in the main analysis is replaced with an ESG Dummy variable. This dummy is coded as 1 if firm i is listed on the THSI list and 0 otherwise (Chelawat & Trivedi, 2018; Thunputtadom et al., 2024). The THSI list is considered a valid proxy, as it is based on the same evaluation criteria as the SET ESG ratings. Consequently, the firms listed on the THSI index are comparable to firms with high ESG scores, thereby reinforcing the robustness and validity of the research findings. The regression models were re-estimated using Model 4 (ETR), Model 5 (TAX/CFO), and Model 6 (TAX/ASSET). The results of the robustness analysis, as presented in Table 7, were consistent with those reported in Table 6, thereby confirming the stability and reliability of the main research outcomes.

## 5. CONCLUSION AND CONTRIBUTIONS

This study investigates the relationship between customer concentration, foreign investor shareholding, ESG performance, and corporate tax avoidance, drawing on the theoretical frameworks of agency theory and stakeholder theory. The analysis is based on panel data from companies listed on the SET during 2020–2024, comprising 665 firm-year observations. Firm-level control variables are included to enhance the robustness of the results. Tax avoidance is assessed using three proxies: ETR, TAX/CFO, and TAX/ASSET, each capturing different dimensions of tax compliance.

The empirical findings indicate a statistically significant negative relationship between customer concentration and TAX/CFO, suggesting that firms with high customer concentration pay lower taxes relative to their operating cash flows—reflecting a high degree of tax avoidance. Foreign investor shareholding is significantly negatively associated with ETR, implying that firms with a large proportion of foreign ownership tend to pay less tax than expected, engaging in more aggressive tax avoidance practices. Importantly, the study finds empirical support for the moderating role of ESG performance. Specifically, ESG performance weakens the link between customer concentration and tax avoidance, indicating that strong ESG engagement mitigates the extent of tax avoidance associated with customer concentration. Conversely, ESG performance strengthens the relationship between foreign ownership and tax avoidance, suggesting that enhanced ESG practices may, under certain conditions, reinforce the pressure exerted by foreign investors for aggressive tax planning—possibly as a strategy to offset perceived ESG-related costs.

This study offers four key contributions: First, it provides empirical evidence from Thailand, an emerging market context. The results indicate that firms with concentrated customer bases are more prone to tax avoidance, aligning with agency theory. Such firms may retain substantial cash reserves as a precautionary response to customer dependence, which may also be strategically utilized for investments aimed at maintaining long-term relationships with major clients—often associated with tax planning strategies. The findings are consistent with prior empirical studies conducted in Iran and China (Sheybani, 2018; Cao et al., 2020; Huang & Gao, 2022).

Second, the study identifies a positive relationship between foreign ownership and tax avoidance, supporting the applicability of agency theory in the Thai setting. Foreign investors may influence corporate strategies, particularly in tax planning, through their understanding of firm operations and their involvement in complex transactional structures. This finding is consistent with empirical evidence from Indonesia and Jordan (Suranta et al., 2020; Alkurdi & Mardini, 2020; Prayitno et al., 2023).

Third, this research introduces ESG performance as a moderating variable, a contribution that has received limited attention in previous studies. By analyzing how ESG performance influences

the relationships between customer concentration, foreign ownership, and tax avoidance, the study addresses gaps in the literature and contributes to theoretical development. ESG performance is positioned as an internal governance mechanism influencing firms' tax behavior.

Fourth, the findings reveal that ESG performance moderates the relationship between customer concentration and tax avoidance. Firms with strong ESG practices appear more inclined to align with stakeholder expectations and ethical standards, thereby reducing tax avoidance. This finding aligns with stakeholder theory, which emphasizes transparency, accountability, and long-term stakeholder trust. Conversely, ESG performance amplifies the relationship between foreign ownership and tax avoidance. As a firm's ESG performance becomes more effective, foreign investors may be more inclined to support or participate in tax avoidance practices. In this case, ESG-related expenditures may be perceived by foreign investors as reducing firm value, prompting substantial pressure to engage in tax avoidance, to compensate for the financial burdens associated with ESG initiatives. ESG activities may thus be used symbolically to enhance corporate image, rather than reflecting genuine commitment to sustainability—an interpretation consistent with agency theory.

Overall, in the context of Thailand, ESG performance plays a crucial dual role: mitigating tax avoidance in some cases while reinforcing it in others, depending on ownership structure and customer dependency.

The findings carry several policy and practical implications. First, they provide empirical guidance for designing regulatory frameworks that balance investment promotion with the protection of the domestic tax base, particularly in emerging economies such as Thailand. Integrating ESG indicators into tax risk assessments could assist regulators in effectively identifying and monitoring firms at a high risk of aggressive tax planning. Second, regulatory agencies such as the Revenue Department and the Securities and Exchange Commission may enhance corporate governance by requiring comprehensive ESG disclosures to improve transparency, accountability, and institutional capacity. Third, at the international level, the findings support policy recommendations for BEPS member countries and Asia-Pacific economies to adopt ESG as a core corporate governance tool aimed at reducing cross-border profit shifting and improving compliance. Finally, for corporate decision-makers, firms with high customer concentration or significant foreign ownership should align their tax strategies with ESG principles to manage reputational risk, build stakeholder trust, and support sustainable development.

Despite these contributions, the study acknowledges several limitations. First, the analysis relies on quantitative financial data and does not incorporate the geographical or operational characteristics of firms. Future research may adopt qualitative methods, such as in-depth interviews with key

stakeholders, such as auditors, tax officials, or corporate executives, to gain deeper insights into the motivations and mechanisms driving tax avoidance.

Second, the study treats foreign ownership as an aggregated measure, without distinguishing between types of shareholders, such as institutional and retail investors. Future studies should disaggregate ownership types to examine differential effects on tax behavior.

Third, comparative analyses across industries or countries—particularly within the Asia-Pacific region or among OECD members—could provide a broader context. Exploring the link between tax avoidance and firm value, particularly with ESG performance as a moderating variable, represents another promising avenue for future research.

Additionally, the sample is restricted to companies listed on the SET100 index, which are predominantly large firms that play a significant role in the Thai capital market. This focus constrains the generalizability of the findings to small or unlisted firms. Expanding the sample in future studies would enhance external validity and offer a more comprehensive understanding of tax avoidance behavior in varying corporate contexts.

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