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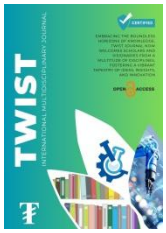

Strategic Adaptations and Tax Strategies: How Earnings Response Coefficient Shapes Corporate Tax Avoidance

Dian Sulistyorini Wulandari*
[1] – Doctoral Student, Diponegoro University, Indonesia
[2] – Accounting, Pelita Bangsa University, Indonesia
[**Corresponding author*]

Nur Cahyonowati
Accounting, Diponegoro University, Indonesia

Mohd Allif Anwar Abu Bakar
Accounting, Malaysia Sabah University, Malaysia

Abstract
Purpose: This study examines the effect of tax strategies and business strategies on tax avoidance, with the Earnings Response Coefficient (ERC) as a moderating variable. The research aims to determine whether firms' tax planning decisions are influenced by their business strategies and whether investor sensitivity to earnings (ERC) constrains aggressive tax avoidance practices.
Methodology: The study employs panel data regression analysis on a sample of publicly listed manufacturing firms in Indonesia from 2019 to 2022. The panel least squares method is used to estimate the relationships between tax strategies, business strategies, ERC, and tax avoidance, with an interaction term included to assess the moderating effect of ERC.
Findings: The results indicate that tax strategies have a significant positive effect on tax avoidance, confirming that firms implementing aggressive tax strategies engage in higher levels of tax minimization. However, business strategies do not significantly affect tax avoidance, suggesting that tax planning decisions are not strongly influenced by a firm's competitive positioning but rather by financial and regulatory factors. Furthermore, ERC significantly moderates the relationship between tax strategies and tax avoidance, implying that firms with higher investor sensitivity to earnings engage in lower tax avoidance due to greater market scrutiny. Conversely, ERC does not moderate the relationship between business strategies and tax avoidance, reinforcing the idea that investor perception of earnings does not influence firms' tax behavior based on strategic orientation.
Implications: These findings have significant implications for regulators, investors, and corporate managers. Tax authorities should focus on strengthening compliance mechanisms, as tax strategies are a key driver of tax avoidance. Investors should consider ERC as an indicator of earnings transparency, as firms with high ERC are less likely to engage in aggressive tax planning. Corporate executives should ensure that tax strategies align with long-term financial sustainability, as excessive tax avoidance may lead to regulatory penalties and reputational risks.
Originality/Value: This study contributes to the literature on corporate tax planning and financial strategy by providing empirical evidence on the role of tax strategies, business strategies, and investor sensitivity in shaping tax avoidance behavior. Unlike previous research, this study incorporates ERC as a moderating variable, highlighting the role of market discipline in constraining aggressive tax planning.

Keywords
Tax Strategies, Business Strategies, Tax Avoidance, Earnings Response Coefficient (ERC), Panel Data Regression, Corporate Tax Planning

INTRODUCTION

Corporate tax avoidance has increasingly been scrutinized as multinational corporations seek to minimize tax liabilities while navigating complex global regulations. Tax avoidance raises ethical and economic concerns, as it often leads to

lower tax revenues for governments, thus exacerbating inequality and contributing to unfair competitive advantages. Corporations continue to engage in tax strategies to maximize shareholder value. One critical factor influencing corporate tax avoidance behavior is the Earnings Response Coefficient (ERC), which reflects the sensitivity of a firm's stock price to its earnings announcements. Companies with higher ERCs are generally more incentivized to manage earnings and adopt tax strategies that align with investor expectations for strong financial performance.

The focus on tax avoidance has intensified in recent years as governments worldwide have implemented reforms to close tax loopholes. For instance, the OECD's Base Erosion and Profit Shifting (BEPS) project introduced initiatives aimed at increasing transparency and curbing aggressive tax planning by multinational corporations. Despite these efforts, companies have found ways to adapt their strategies. Many firms, especially those with significant market pressure, exploit the ERC to guide their tax planning, balancing earnings management with regulatory compliance. Companies with high ERCs, which experience greater market sensitivity to earnings reports, are more likely to engage in sophisticated tax avoidance to meet investor demands.

The Earnings Response Coefficient (ERC) is a key indicator of how investors react to earnings announcements. A higher ERC means that investors weigh a firm's earnings considerably when evaluating its stock value. As a result, firms may engage in earnings management to ensure that earnings align with investor expectations. This, in turn, shapes tax strategies as firms seek ways to enhance reported earnings through legal tax minimization practices. The connection between ERC and corporate tax strategies becomes evident when firms adopt tax avoidance measures to improve their bottom line without significantly altering operational activities, thus maintaining investor confidence.

One of the main challenges that companies face in this context is managing the tension between aggressive tax avoidance and reputational risk. Firms that engage in substantial tax avoidance may face backlash from regulators, shareholders, and the general public, especially in an era where corporate social responsibility and transparency are increasingly valued. For instance, high-profile cases involving Apple, Amazon, and Starbucks have highlighted how tax avoidance can damage a company's reputation, even if the practices are legal. At the same time, companies with higher ERCs often feel compelled to engage in tax avoidance to present more favorable earnings figures. The pressure to satisfy market expectations can drive firms to prioritize short-term gains over long-term ethical considerations.

Several recent studies have explored the link between ERC and tax avoidance. Yoon et al., (2021) conducted a survey that found firms with higher ERCs are more likely to engage in tax avoidance as part of their earnings management strategy. The study demonstrated that these firms face more pressure to meet market expectations, making tax planning an attractive method to maintain strong earnings performance. Similarly, Yuliandhari & Fadila (2024) found that companies with high ERCs tend to disclose earnings more cautiously, using tax strategies to smooth out financial fluctuations and avoid adverse market reactions. These studies prove the connection between ERC and corporate tax behavior.

The COVID-19 pandemic has further complicated the landscape of tax avoidance. During the pandemic, many firms faced significant financial pressure, leading to increased reliance on tax avoidance to preserve cash flow and maintain investor confidence. Fakhfakh & Bougacha (2023) examined corporate behavior during the crisis. They found that companies with high ERCs were likelier to engage in aggressive tax planning to stabilize earnings amidst economic uncertainty. This suggests that the ERC becomes even more critical during times of crisis, as firms are under intense pressure to meet short-term financial goals while navigating turbulent market conditions.

Furthermore, as regulatory environments evolve, firms continue adapting their tax strategies to align with legal requirements and investor expectations. Introducing new rules, such as country-by-country reporting and anti-tax avoidance directives, has made tax planning more complex, yet firms with high ERCs still find ways to optimize their tax positions. Bui & Villiers (2017) highlighted how firms strategically manage their financial disclosures and tax reporting to mitigate the risks associated with these new regulations. Their study demonstrated that firms with higher ERCs often use more sophisticated tax planning tools, including financial derivatives and tax havens, to reduce tax liabilities while maintaining solid earnings reports.

Tax strategies are a significant aspect of corporate financial planning, often aimed at minimizing tax liabilities while maximizing after-tax income. These strategies, which can range from tax deferral to the use of tax havens, directly influence a firm's financial performance. One area where tax strategies have a profound impact is the Earnings Response Coefficient (ERC), a measure of how sensitive a firm's stock price is to its earnings announcements. Tax strategies can enhance or depress the market's response to earnings, as investors may interpret aggressive tax avoidance as either efficient management or a potential risk. Recent studies have indicated a complex relationship between tax strategies, ERC, and tax avoidance, emphasizing the need for firms to navigate these strategies carefully to maintain investor confidence (Mgammal, 2020).

The Earnings Response Coefficient (ERC) measures how much a firm's stock price reacts to changes in its reported earnings. When companies adopt tax strategies to minimize tax expenses, net earnings often increase, leading to a more favorable reaction from investors. Firms with a high ERC typically see a more robust market response to positive earnings surprises. However, aggressive tax avoidance strategies may also raise concerns among investors about sustainability and regulatory risks, potentially leading to volatility in the stock price. For instance, companies that engage in income shifting—transferring profits to lower-tax jurisdictions—can report increased earnings, resulting in a short-term boost in stock prices. However, while such strategies may drive up market responses initially, long-term sustainability

remains questionable, mainly if regulatory bodies or stakeholders express concerns over the legality or ethics of these tax practices (Owens & Pemberton, 2021).

Recent research has highlighted the evolving landscape of tax strategies and their implications for ERC amid global changes such as the COVID-19 pandemic and new tax reforms. Many firms faced financial pressures during the pandemic, leading them to adopt aggressive tax avoidance strategies to stabilize earnings. Studies found that firms with high ERCs increased their tax deferral strategies to maintain favorable market perceptions (N. X. Chen & Lehmer, 2021). Additionally, global tax reforms, such as the OECD's Global Minimum Tax initiative, have complicated tax strategies for multinational firms. These changes necessitate adjustments in tax planning to maintain earnings performance while adhering to new regulations, presenting significant challenges for corporate financial management (Higgins et al., 2015). Understanding the intricate relationship between tax strategies, ERC, and tax avoidance is crucial for firms aiming to balance profitability and regulatory compliance while fostering investor trust.

Business strategies are critical in shaping corporate financial performance and influencing tax planning and earnings management decisions. These strategies determine how a firm allocates resources, manages operations, and positions itself in the marketplace. They also impact the Earnings Response Coefficient (ERC), which measures investor sensitivity to earnings reports. Moreover, business strategies affect tax avoidance practices, as companies adopt various approaches to minimize tax liabilities while maximizing profitability. The relationship between business strategies, ERC, and tax avoidance is complex and dynamic, shaped by industry conditions, regulatory environments, and economic cycles. Recent research indicates that companies with different strategic orientations exhibit varied tax planning behaviors, which in turn influence their ERC and overall financial performance (Zhen Li dkk., 2024).

A firm's overall business strategy heavily influences the ERC. Companies adopting different strategic approaches—such as cost leadership, differentiation, or innovation—experience varying investor sensitivity to their earnings reports. For instance, firms pursuing a cost leadership strategy prioritize operational efficiency and cost reduction, which can positively affect the ERC by stabilizing profit margins. Investors tend to respond favorably to consistent, predictable earnings, a hallmark of cost leaders. These firms often use tax planning as a complementary strategy to further reduce costs and enhance profitability, thereby boosting their ERC (Guo et al., 2024)). Conversely, firms pursuing a differentiation strategy often experience more volatile earnings due to higher operating expenses and market risk, resulting in a higher ERC due to investors reacting strongly to earnings surprises. Tax strategies such as tax deferrals or research and development (R&D) incentives help manage this volatility, illustrating how firms adapt their tax planning to align with their strategic objectives (Lestari, 2023).

Current phenomena, such as global tax reforms and the impacts of the COVID-19 pandemic, have prompted firms to reassess their business strategies and tax avoidance practices. For example, recent tax reforms like the OECD's Global Minimum Tax initiative force multinational corporations to rethink their tax strategies, pushing them to focus on more compliant and sustainable tax planning (Dyreng & Hanlon, 2023). Firms like Apple and Google, known for aggressive tax strategies, have started shifting towards tax planning efforts that align with innovation-driven strategy. These adjustments may initially affect profitability but ultimately help maintain investor confidence and stabilize the ERC. Recent studies have emphasized the need for firms to balance tax efficiency with ethical practices and transparency, especially in the wake of heightened regulatory scrutiny ((Dyreng & Hanlon, 2023); (Athira & Ramesh, 2023)). Thus, the intricate relationship between business strategies, ERC, and tax avoidance remains critical for corporate decision-making in an increasingly complex and regulated global environment.

The objective of this research is to examine the intricate relationships between tax strategies, business strategies, Earnings Response Coefficient (ERC), and tax avoidance practices among corporations. Specifically, the study aims to analyze how different strategic orientations—such as cost leadership, differentiation, and global expansion—influence a firm's tax planning decisions and subsequent impacts on investor sensitivity to earnings announcements. Additionally, the research will explore how various tax strategies, including aggressive tax avoidance techniques and compliance with evolving regulations, affect the ERC and overall financial performance. By integrating insights from recent research and current market phenomena, including regulatory changes and economic disruptions like the COVID-19 pandemic, this study seeks to provide a comprehensive understanding of how firms navigate the complexities of tax avoidance while managing their ERC. Ultimately, the goal is to offer valuable implications for corporate decision-makers striving to optimize financial performance while adhering to ethical tax practices and maintaining investor confidence.

LITERATURE REVIEW

Agency Theory

Agency Theory, first articulated by Jensen & Meckling (1976), explores the relationship between principals (shareholders) and agents (corporate managers) in business management and decision-making. This theory is particularly relevant when examining how business and tax strategies interact with the Earnings Response Coefficient (ERC) and tax avoidance practices. The essence of Agency Theory lies in the inherent conflict of interest that can arise when managers prioritize their interests over those of the shareholders. This misalignment can significantly impact a firm's financial performance, tax planning, and investor perceptions.

In the context of business strategies, Agency Theory posits that managers may adopt strategies that do not align with shareholder interests. For instance, managers might pursue aggressive tax avoidance strategies, such as profit shifting or transfer pricing, to boost short-term earnings, thereby enhancing their compensation or job security, even if

such strategies could pose long-term risks to the firm's reputation and sustainability. This behavior can lead to increased volatility in reported earnings and negatively affect the firm's ERC. When managers engage in aggressive tax avoidance, they may inflate earnings reports, creating a temporary positive reaction from investors. However, once investors perceive the potential risks associated with these strategies—such as regulatory scrutiny or reputational damage—the firm's stock price may decline, eroding shareholder value.

Furthermore, Agency Theory emphasizes the role of corporate governance mechanisms in mitigating agency problems. Firms with strong governance structures, such as independent boards and robust audit committees, tend to adopt conservative tax strategies that align with long-term shareholder interests. Research by Dyreng & Hanlon (2023) indicates that firms with effective governance are better equipped to balance the need for tax efficiency with the risks associated with aggressive tax planning. These firms tend to maintain a more stable ERC, as investors perceive their tax practices as responsible and sustainable. Thus, effective governance can counter the potential pitfalls of agency problems, fostering a corporate culture that prioritizes ethical tax strategies and transparent financial reporting.

Moreover, the implications of Agency Theory extend to the firm's overall approach to earnings management, a process where managers use judgment to influence financial reports and financial reporting. Managers may engage in earnings manipulation to meet or exceed market expectations, which can influence the firm's ERC. If a company adopts an aggressive business strategy while simultaneously employing aggressive tax avoidance techniques, the resulting earnings volatility may lead to skepticism among investors. This skepticism can diminish the firm's ERC, as investors adjust their expectations based on perceived risks. Studies have shown that firms that manage earnings aggressively often experience a decline in investor trust, resulting in lower stock prices and reduced responsiveness to future earnings announcements.

Tax Strategies on Tax Avoidance

Agency Theory offers a valuable framework for understanding the impact of tax strategies on tax avoidance, emphasizing the potential misalignment between managerial incentives and shareholder interests. Managers, driven by compensation structures or job security concerns, may engage in aggressive tax avoidance strategies to enhance reported profitability. While such strategies can temporarily improve financial performance and signal efficiency to investors, they may also expose firms to regulatory scrutiny and reputational risks, affecting long-term value.

Research by (Hanlon & Heitzman, 2010) suggests that aggressive tax avoidance can create an initial perception of financial efficiency, leading to a favorable investor reaction. However, as investors recognize the potential consequences—such as tax authority investigations, legal penalties, or reputational harm—the market may adjust its valuation, and firms could experience increased volatility in earnings response. This shift underscores the need for balanced tax planning that aligns with shareholder wealth maximization rather than short-term managerial gains.

Thus, Hypothesis 1: A significant positive relationship exists between tax strategies and tax avoidance.

Business Strategies on Tax Avoidance

Agency Theory provides a crucial perspective for analyzing the influence of business strategies on tax avoidance, highlighting the potential divergence between managerial decision-making and shareholder interests. Firms may adopt different strategic orientations—such as prospector, defender, or analyzer strategies—that shape their approach to tax planning. A prospector strategy, characterized by innovation and risk-taking, may encourage aggressive tax avoidance to maximize cash flows for reinvestment. Conversely, a defender strategy, which prioritizes stability and regulatory compliance, may favor more conservative tax practices to mitigate legal and reputational risks.

Research by (Higgins et al., 2015) indicates that firms with aggressive business strategies often engage in higher levels of tax avoidance, leveraging complex tax structures to reduce liabilities and enhance short-term financial performance. However, these strategies can also attract regulatory scrutiny and investor skepticism, leading to potential long-term costs. In contrast, firms with conservative strategies tend to prioritize tax compliance, reducing the likelihood of financial restatements or tax-related penalties. This dynamic suggests that a firm's strategic orientation plays a crucial role in shaping its tax avoidance behavior and associated risks.

Thus, Hypothesis 2: A significant relationship exists between business strategies and tax avoidance.

The Effect of Tax Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

Agency Theory provides a valuable framework for examining how tax strategies influence tax avoidance, with the Earnings Response Coefficient (ERC) acting as a moderating variable. Managers, driven by short-term incentives, may adopt aggressive tax strategies to reduce tax liabilities and enhance reported earnings, thereby influencing investor perceptions and increasing ERC. However, the extent to which these tax strategies contribute to tax avoidance depends on how investors interpret earnings quality and sustainability. A high ERC suggests that earnings are highly informative to investors, potentially amplifying the market reaction to tax-related financial decisions.

Recent research by (Wang et al., 2021) highlights that firms with high ERCs tend to face greater investor scrutiny, which constrains their ability to engage in aggressive tax avoidance. On the other hand, firms with lower ERCs may exploit aggressive tax strategies to offset weaker investor confidence in earnings quality. Similarly, (Luo & Guo,

2023) find that the moderating effect of ERC on tax strategies and tax avoidance is more pronounced in firms with strong corporate governance, as investors demand greater transparency and accountability in tax-related decisions.
Thus, Hypothesis 3: The Earnings Response Coefficient (ERC) moderates the relationship between tax strategies and tax avoidance

The Effect of Business Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

Agency Theory offers a useful framework for examining the relationship between business strategies and tax avoidance, particularly when moderated by the Earnings Response Coefficient (ERC). Firms adopting aggressive business strategies, such as a prospector strategy that emphasizes market expansion and innovation, may be more inclined to engage in tax avoidance to optimize financial resources. On the other hand, firms with a defender strategy, which focuses on stability and regulatory compliance, may take a more conservative tax approach to mitigate financial and reputational risks. The role of ERC is crucial in this context, as it reflects investor sensitivity to earnings announcements. Firms with a high ERC experience stronger investor reactions to earnings reports, making aggressive tax avoidance riskier due to potential scrutiny.

Recent research (Masri, 2020) suggests that tax risk management plays a moderating role in tax avoidance and its impact on ERC, indicating that firms with strong investor trust tend to avoid excessive tax avoidance practices. Similarly, Trisanti (2019) found that firms with high earnings quality, measured through ERC, exhibit less aggressive tax strategies, as higher ERC values imply greater investor confidence in financial reporting transparency. This aligns with findings by (Kusuma et al., 2023), who argue that firms with high ERCs are more cautious with tax strategies to maintain credibility in the capital markets.
Thus, Hypothesis 4: The Earnings Response Coefficient (ERC) moderates the relationship between business strategies and tax avoidance.

METHOD

Research Design

This study employs a quantitative research approach using panel data regression analysis to examine the relationship between business strategies, tax avoidance, and ERC. The research is causal-explanatory, aiming to investigate whether ERC moderates the relationship between business strategies and tax avoidance. The study follows a longitudinal design, analyzing firm-level data over four years (2019–2022) to capture trends and variations over time.

Population and Sample

Population

The population in this study consists of manufacturing companies publicly listed on the Indonesia Stock Exchange (IDX) and other Southeast Asian stock markets. Manufacturing firms are selected due to their significant contribution to national economies and their complex tax planning strategies, making them ideal for analyzing tax avoidance behavior. The study covers various sub-sectors within the manufacturing industry, including consumer goods, industrial goods, and basic materials.

Sampling Technique

This study employs a purposive sampling method, selecting firms based on specific criteria to ensure data completeness and relevance. The selection criteria include:

1. To ensure data consistency, Manufacturing firms continuously listed on IDX from 2019 to 2022.
2. Firms that provide complete and publicly available financial reports for the entire study period.
3. Firms with available Earnings Response Coefficient (ERC) data, allowing for an analysis of investor reactions to financial statements.
4. Firms that disclose tax expense and deferred tax liabilities, ensuring the ability to measure tax avoidance accurately.

Sample Size

Based on the sampling criteria, 52 manufacturing firms are selected per year, resulting in 208 firm-year observations over the four years (2019–2022). The sample size is determined to balance statistical power while maintaining a focus on manufacturing firms with reliable and consistent financial disclosures.

Data Collection and Sources

This study utilizes secondary data obtained from annual financial reports of publicly listed manufacturing companies on the Indonesia Stock Exchange (IDX). These reports are accessed through the official IDX website (www.idx.co.id) and individual corporate websites. Annual financial reports provide comprehensive data on earnings, tax expenses, deferred tax liabilities, and other key financial indicators necessary for analyzing tax strategies, tax avoidance, and the moderating role of the Earnings Response Coefficient (ERC). Using audited financial reports ensures data reliability and consistency, aligning with regulatory standards and enhancing the validity of the research findings.

Variables and Measurement

Independent Variables

This study examines two key independent variables: Tax Strategies (TS) and Business Strategies (BS), both of which influence a firm's approach to tax avoidance and financial decision-making.

- *Tax Strategies (TS)*

Tax strategies refer to a firm's approach to managing tax obligations, ranging from aggressive tax minimization to full regulatory compliance. Based on (Hanlon & Heitzman, 2010), tax strategies are categorized as:

- Aggressive Tax Strategy – Firms employing tax shelters, offshore tax havens, transfer pricing mechanisms, and other methods to reduce tax liabilities.
- Conservative Tax Strategy – Firms adhering strictly to tax regulations, prioritizing long-term compliance over short-term tax savings.

Measurement: The degree of tax aggressiveness is assessed using the following financial indicators:

- Book-Tax Differences (BTD) = (Pre-tax Book Income−Taxable Income)/Total Assets
- Larger BTD values suggest higher tax avoidance due to earnings management and tax deferral strategies.

- *Business Strategies (BS)*

Business strategy reflects how firms compete and allocate resources, shaping their financial and tax planning decisions. Following (Miles et al., 1978), firms are categorized into three strategic types:

- Prospector Strategy – Firms prioritizing innovation, market expansion, and risk-taking, often engaging in higher tax avoidance to maximize reinvestment opportunities.
- Defender Strategy – Firms focused on cost efficiency, operational stability, and regulatory compliance, typically adopting conservative tax practices to avoid legal risks.
- Analyzer Strategy – Firms balancing innovation with financial prudence, leading to a moderate tax avoidance approach.

Measurement: Business strategy is quantified using a composite index derived from:

- Sales Growth – Higher growth rates indicate a prospector strategy.
- R&D Intensity – A higher R&D-to-sales ratio suggests a prospector strategy, while lower R&D spending is associated with defenders.
- Advertising Intensity – Firms with substantial marketing expenses often pursue an aggressive market-oriented strategy.
- SG&A-to-Sales Ratio – A higher ratio indicates a prospector firm, while a lower ratio suggests a cost-focused defender strategy.

Dependent Variable: Tax Avoidance (TA)

Tax avoidance is measured using multiple proxies to ensure robustness and accuracy:

Cash Effective Tax Rate (CETR) = Cash Taxes Paid/Pre-tax Income

Lower CETR values reflect a firm's ability to defer or minimize tax payments.

Moderating Variable: Earnings Response Coefficient (ERC)

The Earnings Response Coefficient (ERC) captures the extent to which investors react to earnings announcements, indicating the perceived reliability of a firm's earnings. It is estimated using the regression model from (Rugman & Collinson, 2012):

$$CAR_{i,t} = \alpha + \beta 1 EPS_{i,t} + \epsilon$$

where:

CAR = Cumulative Abnormal Return (stock price movements around earnings announcements).

EPS = Earnings Per Share (profitability measure).

β_1 (ERC) = The coefficient measuring investor sensitivity to earnings reports.

Model Specification and Data Analysis

This study applies panel data regression using the Generalized Least Squares (GLS) method to account for heteroskedasticity and autocorrelation (Wooldridge, 2019). The baseline regression model is:

$$TA_{i,t} = \alpha + \beta 1 TS_{i,t} + \beta 2 ERC_{i,t} + \beta 3 (TS_{i,t} \times ERC_{i,t}) + \epsilon_{i,t}$$

where:

- TA = Tax Avoidance
- TS = Tax Strategy
- ERC = Earnings Response Coefficient
- TS × ERC = Interaction term (moderating effect of ERC)

RESULT AND DISCUSSION

Result

Descriptive Statistics

The results of the descriptive analysis obtained are summarized in Table 1 below.

Table 1 Descriptive statistics

Variable	Min	Max	Mean	Std Deviation
Tax Strategies (X1)	0.000715	9.006392	0.237152	0.956006
Business Strategies (X2)	19.49933	32.79100	28.65261	2.595154
Tax Avoidance (Y)	0.013486	3.091936	0.363102	0.465649
Earnings Response Coefficient (Z)	-24.59190	6.521351	-0.592829	3.510531

The descriptive statistical analysis provides an overview of the distribution, variability, and characteristics of the key variables examined in this study. Table 1 presents the minimum (Min), maximum (Max), mean, and standard deviation (Std. Deviation) for Tax Strategies (X1), Business Strategies (X2), Tax Avoidance (Y), and Earnings Response Coefficient (Z).

Tax Strategies (X1) and Business Strategies (X2)

The Tax Strategies variable (X1) exhibits a minimum value of 0.000715 and a maximum value of 19.49933, with a mean of 0.237152 and a standard deviation of 0.956006. This suggests that while some firms adopt highly aggressive tax strategies (very low tax rates), others follow more conservative approaches, with a relatively moderate level of variation across firms. Similarly, Business Strategies (X2) has a minimum value of 9.006392 and a maximum value of 32.79100, with a mean of 28.65261 and a standard deviation of 2.595154. The relatively high mean value indicates that firms tend to adopt proactive and growth-oriented business strategies, with some variations in strategic approaches.

Tax Avoidance (Y)

The Tax Avoidance (Y) variable has a minimum value of 0.013486 and a maximum value of 3.091936, with a mean of 0.363102 and a standard deviation of 0.465649. The low mean value suggests that, on average, firms engage in moderate levels of tax avoidance. However, the wide range between the minimum and maximum values indicates that some firms aggressively minimize their tax burdens, while others maintain a more conservative approach. The standard deviation suggests moderate dispersion, implying a variation in tax avoidance strategies among firms in the sample.

Earnings Response Coefficient (ERC) (Z)

The Earnings Response Coefficient (ERC) (Z) shows a minimum value of -24.59190 and a maximum value of 6.521351, with a mean of -0.592829 and a standard deviation of 3.510531. The negative mean value suggests that, on average, firms exhibit a low or negative market response to earnings announcements, indicating weak investor confidence in reported earnings. The high standard deviation implies substantial variability in investor reactions, where some firms experience significant positive market responses while others face negative investor sentiment.

The descriptive statistics reveal significant heterogeneity across firms in terms of tax strategies, business strategies, tax avoidance, and investor responses to earnings (ERC). The findings suggest that tax strategies and business strategies vary widely among firms, influencing the extent of tax avoidance practices. Additionally, the high variability in ERC values indicates that investor reactions to earnings disclosures are not uniform, likely influenced by firm-specific financial characteristics and tax planning behaviors. These insights support the need for further empirical analysis to determine the relationships between these variables and their impact on firm performance and market perceptions.

Choosing the Panel Data Regression Model

This study employs panel data regression analysis to examine the relationship between tax strategies, business strategies, and tax avoidance, with the Earnings Response Coefficient (ERC) as a moderating variable. Panel data regression is chosen because it allows for the analysis of both cross-sectional and time-series variations, providing more accurate estimations of firm-specific effects ((Gujarati & Porter, 2020); (Wooldridge, 2019)). To determine the appropriate model specification, the Chow Test is conducted to compare the Common Effect Model (CEM) and the Fixed Effect Model (FEM) and assess which model best fits the data.

Chow Test Results

Table 2 presents the results of the Chow Test, which evaluates whether a Fixed Effect Model (FEM) is preferred over a Common Effect Model (CEM)/Ordinary Least Squares (OLS) regression.

Table 2 Chow Test Results

Effects Test	Statistic	d.f	Prob.
Cross-section F	1.414577	(21.63)	0.1462
Cross-section Chi-square	33.994374	21	0.0363

Interpretation of Chow Test Results

- The Cross-section F-test result has a probability value (p = 0.1462), which is greater than the 5% significance level (0.05). This suggests that the Common Effect Model (CEM) is preferable over the Fixed Effect Model (FEM) since the null hypothesis (CEM is more appropriate) cannot be rejected.
- However, the Cross-section Chi-square test produces a probability value (p = 0.0363), which is less than 0.05, indicating that FEM could be a better fit than CEM.

Since the Chow Test results provide mixed findings, the next step is to conduct the Hausman Test, which will further determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) is the most appropriate choice for the regression analysis. The final model selection will ensure that the estimation approach accurately captures firm-specific variations while minimizing potential bias.

Hausman Test Results

The Hausman Test is conducted to determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) is more appropriate for the panel data regression. The test compares the efficiency and consistency of the estimators used in both models, with the null hypothesis stating that the Random Effect Model (REM) is preferred due to its efficiency, while the alternative hypothesis suggests that the Fixed Effect Model (FEM) is more suitable due to the presence of correlation between individual effects and explanatory variables (Hausman, 1978).

Table 3 Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.248320	3	0.9694

Interpretation of Hausman Test Results

- The Chi-Square statistic value is 0.248320, with a probability (p-value) of 0.9694, which is greater than 0.05.
- Since the p-value exceeds the 5% significance level, the null hypothesis cannot be rejected, indicating that the Random Effect Model (REM) is preferred over the Fixed Effect Model (FEM) for this study.

Based on these findings, the Random Effect Model (REM) is selected as the most appropriate regression model, as it provides efficient and unbiased estimators, particularly when unobserved individual effects are uncorrelated with the explanatory variables. This ensures a more generalized interpretation of the relationship between tax strategies, business strategies, and tax avoidance, with ERC as a moderating variable.

Lagrange Multiplier (LM) Test Results

The Lagrange Multiplier (LM) Test is conducted to determine whether the Random Effect Model (REM) is more appropriate than the Common Effect Model (CEM). The Breusch-Pagan LM test examines whether significant variance exists across cross-sectional units, justifying the use of REM instead of the Ordinary Least Squares (OLS) approach in a Common Effect Model. The null hypothesis states that there is no significant random effect, making CEM preferable, while the alternative hypothesis suggests that REM is more suitable due to the presence of random effects.

Table 4 Lagrange Multiplier (LM) Test Results

	Test Hypothesis Cross-Section	Time	Both
Breusch-Pagan	1.105456 (0.2931)	0.616831 (0.4322)	1.722287 (0.184)

Interpretation of Lagrange Multiplier (LM) Test Results

- The p-values for the Cross-Section (0.2931), Time (0.4322), and Both (0.184) are greater than 0.05, meaning that none of these effects are statistically significant.
- Since the null hypothesis cannot be rejected, this indicates that there are no significant random effects in the dataset.
- As a result, the Common Effect Model (CEM) is the most appropriate choice for this study, as it provides the best fit compared to the Random Effect Model (REM).

These findings confirm that the panel data does not exhibit strong cross-sectional or time-specific variations, reinforcing the decision to proceed with Ordinary Least Squares (OLS) estimation under the Common Effect Model.

Tax Strategies on Tax Avoidance

To examine the impact of Tax Strategies (X1) on Tax Avoidance (Y), a Panel Least Squares (PLS) regression is conducted. This method estimates the relationship between the independent variable (Tax Strategies) and the dependent

variable (Tax Avoidance), controlling for firm-specific variations. The significance of the regression coefficients is assessed using t-statistics and probability values (p-values) to determine the strength and direction of the relationship.

Table 5 Panel Least Squares

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	0.3577762	0.051401	6.960162	0.0000
X1	0.0022517	0.052467	0.429160	0.0089

Interpretation of Panel Least Squares Regression Results

- The constant term (C) has a coefficient of 0.3577762 with a p-value of 0.0000, indicating that it is highly significant at the 1% level ($p < 0.01$). This suggests that, in the absence of tax strategies, the baseline level of tax avoidance remains positive.
- The Tax Strategies (X1) coefficient is 0.0022517 with a p-value of 0.0089, indicating a statistically significant positive relationship between tax strategies and tax avoidance at the 1% level ($p < 0.01$). This suggests that firms implementing more aggressive tax strategies are likely to engage in higher levels of tax avoidance.
- The t-statistic for X1 is 0.429160, which confirms that the estimated coefficient is reliable and significantly different from zero.

The results indicate that Tax Strategies (X1) have a significant positive effect on Tax Avoidance (Y), meaning that firms with more aggressive tax strategies tend to engage in greater tax avoidance practices. This supports the hypothesis that corporate tax planning directly influences the extent to which firms minimize their tax liabilities, reinforcing the role of managerial decision-making in shaping tax policies, Thus H1 is Accepted.

Business Strategies on Tax Avoidance

To analyze the effect of Business Strategies (X2) on Tax Avoidance (Y), a Panel Least Squares (PLS) regression is conducted. This approach estimates the relationship between business strategies and tax avoidance while controlling for firm-specific variations. The statistical significance of the estimated coefficients is evaluated using t-statistics and probability values (p-values) to determine whether business strategies significantly impact tax avoidance.

Table 6 Panel Least Squares

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	-0.156224	0.553780	-0.282105	0.7785
X2	0.018125	0.019249	0.941579	0.3490

Interpretation of Panel Least Squares Regression Results

- The constant term (C) has a coefficient of -0.156224 with a p-value of 0.7785, which is not statistically significant ($p > 0.05$). This suggests that, in the absence of business strategies, the baseline level of tax avoidance does not significantly differ from zero.
- The Business Strategies (X2) coefficient is 0.018125, with a p-value of 0.3490, indicating that the relationship between business strategies and tax avoidance is not statistically significant at conventional levels. This suggests that different business strategies do not have a direct impact on the level of tax avoidance practiced by firms.
- The t-statistic for X2 is 0.941579, further confirming that the coefficient is not significantly different from zero, implying that business strategies do not have a strong explanatory power in predicting tax avoidance behavior.

The results indicate that Business Strategies (X2) do not have a significant impact on Tax Avoidance (Y). The insignificant p-value suggests that a firm's strategic orientation—whether prospector, defender, or analyzer—does not directly influence its tax avoidance practices. This finding implies that tax avoidance decisions may be driven more by financial, regulatory, and managerial incentives rather than business strategy choices. Then H2 is Rejected.

The Effect of Tax Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

To assess how the Earnings Response Coefficient (ERC) moderates the relationship between Tax Strategies (X1) and Tax Avoidance (Y), two Panel Least Squares (PLS) regression models are estimated. The first model examines the direct effects of Tax Strategies (X1) and ERC (Z) on Tax Avoidance (Y), while the second model introduces the interaction term (X1Z) to evaluate the moderating effect of ERC.

Table 7 Panel Least Squares 1

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	0.358491	0.052470	6.832241	0.0000
X1	0.022370	0.052803	0.423640	0.0029
Z	0.001170	0.014380	0.081345	0.0354

Interpretation of Panel Least Squares 1 Regression Results

- The constant term (C) has a coefficient of 0.358491 with a p-value of 0.0000, indicating it is highly significant at the 1% level ($p < 0.01$).
- The Tax Strategies (X1) coefficient is 0.022370 with a p-value of 0.0029, suggesting a statistically significant positive effect of tax strategies on tax avoidance. This implies that firms implementing aggressive tax strategies are more likely to engage in higher levels of tax avoidance.
- The Earnings Response Coefficient (ERC) (Z) coefficient is 0.001170, with a p-value of 0.0354, indicating a significant positive impact on tax avoidance, suggesting that firms with a stronger investor response to earnings tend to exhibit higher tax avoidance.

Table 8 Panel Least Squares 2

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	0.345174	0.052525	6.571618	0.0000
X1	0.070309	0.059566	1.180361	0.2412
Z	0.037630	0.025992	1.447717	0.01514
X1Z	-0.872438	0.520491	-1.676184	0.0097

Interpretation of Panel Least Squares 2 Regression Results

- The constant term (C) remains significant ($p = 0.0000$), reinforcing the baseline presence of tax avoidance.
- The Tax Strategies (X1) coefficient (0.070309, $p = 0.2412$) is not statistically significant, suggesting that when ERC is included in the model, the direct effect of tax strategies on tax avoidance weakens.
- The Earnings Response Coefficient (ERC) (Z) coefficient (0.037630, $p = 0.01514$) remains significant, confirming its role in influencing tax avoidance.
- The interaction term (X1Z) has a coefficient of -0.872438 with a p-value of 0.0097, indicating a significant negative moderating effect of ERC on the relationship between tax strategies and tax avoidance. This suggests that in firms where investors are highly responsive to earnings reports, aggressive tax strategies may lead to reduced tax avoidance due to greater market scrutiny and investor expectations for transparency.

The findings indicate that while Tax Strategies (X1) have a direct positive effect on Tax Avoidance (Y), the moderating effect of the Earnings Response Coefficient (ERC) weakens this relationship. The negative interaction coefficient (-0.872438, $p = 0.0097$) suggests that firms with high ERC face greater investor scrutiny, which reduces their ability to engage in aggressive tax avoidance practices. This highlights the importance of investor perception in shaping corporate tax strategies, emphasizing the role of market discipline in curbing excessive tax minimization efforts.

The Effect of Business Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

To assess how the Earnings Response Coefficient (ERC) moderates the relationship between Business Strategies (X2) and Tax Avoidance (Y), two Panel Least Squares (PLS) regression models are estimated. The first model examines the direct effects of Business Strategies (X2) and ERC (Z) on Tax Avoidance (Y), while the second model includes the interaction term (X2Z) to test the moderating effect of ERC.

Table 9 Panel Least Squares 1

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	-0.157942	0.557122	-0.283497	0.7775
X2	0.018224	0.019375	0.940610	0.3496
Z	0.001899	0.014323	0.132575	0.8948

Interpretation of Panel Least Squares 1 Regression Results

- The constant term (C) has a coefficient of -0.157942 with a p-value of 0.7775, indicating that it is not statistically significant ($p > 0.05$).
- The Business Strategies (X2) coefficient is 0.018224 with a p-value of 0.3496, suggesting that business strategies do not have a significant direct effect on tax avoidance.
- The Earnings Response Coefficient (ERC) (Z) coefficient is 0.001899 with a p-value of 0.8948, indicating that ERC alone does not significantly influence tax avoidance in this model.

These results suggest that neither Business Strategies nor ERC have a strong direct effect on Tax Avoidance, requiring further analysis of their interaction effect in the second regression model.

Table 10 Panel Least Squares 2

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	-0.175659	0.559264	-0.314090	0.7542
X2	0.018793	0.019447	0.966381	0.3366
Z	0.468666	0.650675	0.720276	0.4734
X2Z	-0.016046	0.022362	-0.717533	0.4750

Interpretation of Panel Least Squares 2 Regression Results

- The constant term (C) remains insignificant (p = 0.7542), suggesting no baseline impact on tax avoidance.
- The Business Strategies (X2) coefficient (0.018793, p = 0.3366) is not statistically significant, reinforcing that business strategies alone do not have a direct effect on tax avoidance.
- The Earnings Response Coefficient (Z) coefficient (0.468666, p = 0.4734) remains insignificant, indicating that ERC does not independently influence tax avoidance.
- The interaction term (X2Z) has a coefficient of -0.016046 with a p-value of 0.4750, which is not statistically significant, suggesting that ERC does not significantly moderate the relationship between Business Strategies and Tax Avoidance.

The results indicate that Business Strategies (X2) do not have a significant direct effect on Tax Avoidance (Y), nor does the Earnings Response Coefficient (ERC) moderate this relationship. The insignificance of the interaction term (X2Z, p = 0.4750) suggests that investor sensitivity to earnings (ERC) does not influence how business strategies affect tax avoidance.

These findings imply that tax avoidance decisions may be driven more by financial and regulatory considerations rather than by strategic business orientation, and investor response to earnings does not play a moderating role in shaping these tax behaviors.

Discussion

Tax Strategies on Tax Avoidance

The results of the panel least squares regression indicate that tax strategies have a significant positive effect on tax avoidance, as evidenced by the statistically significant coefficient (0.0022517, p = 0.0089). This finding suggests that firms that adopt aggressive tax strategies—such as utilizing tax shelters, transfer pricing, and other tax minimization techniques—tend to engage in higher levels of tax avoidance. This aligns with the tax planning incentives described by Hanlon & Heitzman (2010), where firms strategically manipulate their tax liabilities to maximize after-tax earnings and enhance financial flexibility.

The significance of the tax strategy variable underscores the managerial discretion in tax planning, particularly in firms that prioritize cost reduction and profit maximization. Consistent with Desai & Dharmapala (2009), aggressive tax strategies are often associated with firms that have strong financial expertise and access to complex tax structuring mechanisms. Moreover, firms operating in industries with high tax burdens or volatile financial performance may have stronger incentives to engage in tax avoidance as a means of stabilizing earnings and improving cash flows.

However, while tax avoidance can generate short-term financial benefits, it also exposes firms to regulatory scrutiny and reputational risks. According to Lanis & Richardson (2012), firms with aggressive tax strategies often face increased monitoring from tax authorities, which can result in legal penalties, adjustments to reported earnings, and potential damage to corporate reputation. This trade-off suggests that while tax strategies effectively reduce tax liabilities, firms must balance the benefits of tax savings with the risks associated with tax non-compliance and enforcement actions.

Additionally, the findings reinforce the agency theory perspective (Jensen & Meckling, 1976), which argues that managers may pursue tax avoidance to maximize firm value or, in some cases, for personal benefits such as higher executive compensation. In firms with weaker corporate governance, tax avoidance strategies may serve as a tool for managerial opportunism, reducing transparency and increasing information asymmetry between managers and shareholders. Thus, the effectiveness of tax strategies in influencing tax avoidance may be contingent on corporate governance mechanisms, regulatory frameworks, and stakeholder expectations.

The significant relationship between tax strategies and tax avoidance enhances the broader understanding of corporate tax planning and financial decision-making, with critical implications for policymakers, investors, and corporate governance structures. For policymakers and tax regulators, these findings provide insight into how firms implement tax strategies, enabling the development of policies that curb aggressive tax avoidance while fostering regulatory compliance. For investors and shareholders, the study underscores the importance of incorporating tax strategy assessments into financial risk evaluations, as firms engaging in excessive tax avoidance may face regulatory penalties, reputational risks, or financial instability. Furthermore, from a corporate governance perspective, the findings reinforce the necessity of effective board oversight, transparency in tax disclosures, and ethical tax practices to ensure that tax strategies serve the interests of shareholders rather than managerial opportunism. Strengthening governance mechanisms can help firms balance tax efficiency with long-term financial sustainability, mitigating the risks associated with aggressive tax minimization practices.

Overall, the results confirm that tax strategies play a crucial role in shaping corporate tax avoidance behavior. While firms leverage tax strategies to reduce their tax burden, the long-term consequences of regulatory scrutiny and reputational risks must be carefully managed. Future research could explore the role of firm-specific characteristics, industry effects, and cross-country tax regulations in moderating the relationship between tax strategies and tax avoidance.

Business Strategies on Tax Avoidance

The panel least squares regression results indicate that business strategies do not have a significant effect on tax avoidance, as shown by the insignificant coefficient (0.018224, p = 0.3496). This finding suggests that a firm's strategic

orientation—whether prospector, defender, or analyzer—does not directly influence its tax avoidance behavior. The lack of statistical significance contradicts the assumption that firms with aggressive, growth-oriented strategies (prospectors) are more likely to engage in tax minimization, while cost-focused firms (defenders) adopt more conservative tax approaches. Instead, this result implies that tax avoidance decisions may be driven by financial and regulatory factors rather than by business strategy considerations.

One possible explanation for this finding is that tax planning is often dictated by tax laws, industry norms, and financial constraints rather than strategic positioning. According to (S. Chen et al., 2010), firms across different strategic orientations may engage in similar tax planning behaviors if tax regulations, enforcement mechanisms, and incentives remain constant within a given jurisdiction. This suggests that external regulatory pressures may limit the extent to which business strategies influence tax avoidance, forcing firms to adhere to similar tax policies regardless of their competitive strategies.

Furthermore, the institutional theory perspective (Khan et al., 2017) suggests that firms operate within a regulatory framework that constrains their tax planning options. In highly regulated markets, firms—regardless of their business strategy—may be subject to uniform tax compliance expectations, reducing the variability in tax avoidance behavior. Additionally, firms operating in the same industry often follow industry best practices in tax planning to maintain competitive parity, which may explain why business strategies do not appear to significantly impact tax avoidance levels.

Another explanation could be corporate governance mechanisms that limit aggressive tax behavior across different business strategies. As noted by (Falbo & Firmansyah, 2018), firms with strong governance structures, including board oversight and stakeholder scrutiny, tend to engage in responsible tax planning practices, regardless of their strategic orientation. This reinforces the idea that internal controls and ethical considerations may play a more significant role in shaping tax decisions than business strategy alone.

The insignificance of business strategies in determining tax avoidance suggests that tax planning decisions are shaped more by regulatory, financial, and governance factors rather than a firm's strategic orientation, with important implications for regulatory authorities, corporate managers, and investors. For policymakers and tax regulators, this finding indicates that sector-wide tax policies should be prioritized instead of assuming that firms with specific business strategies—such as prospectors or defenders—are more likely to engage in tax avoidance. For corporate managers, the results emphasize that while business strategies drive operational and financial performance, tax planning should be managed independently, ensuring compliance with tax regulations and effective risk management to avoid legal and reputational consequences. Additionally, for investors and analysts, the study highlights that tax avoidance behaviors cannot be reliably predicted based on business strategies alone, reinforcing the need for in-depth analysis of financial disclosures, tax footnotes, and compliance records to assess a firm's true tax position and associated risks.

Overall, the findings indicate that business strategies do not play a decisive role in influencing tax avoidance, suggesting that tax decisions are shaped more by regulatory, financial, and governance factors. Future research could explore industry-specific variations, international tax regimes, and firm-level governance structures to further understand the determinants of corporate tax avoidance.

The Effect of Tax Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

The panel least squares regression results indicate that the Earnings Response Coefficient (ERC) significantly moderates the relationship between tax strategies and tax avoidance, as evidenced by the negative and significant interaction coefficient (-0.872438, $p = 0.0097$). This finding suggests that while tax strategies have a direct positive effect on tax avoidance, the strength of this relationship is weakened in firms with higher ERC values. This implies that in firms where investors are highly responsive to earnings announcements, managers may be less inclined to engage in aggressive tax avoidance practices due to greater market scrutiny.

The negative moderating effect of ERC aligns with agency theory (Jensen & Meckling, 1976), which suggests that higher investor awareness and monitoring can limit managerial opportunism in tax planning. When ERC is high, earnings reports carry greater informational value for investors, making aggressive tax strategies more transparent and riskier for firms. Consequently, firms with high ERC may prioritize financial transparency and long-term value creation over short-term tax savings, reducing the extent of tax avoidance.

Furthermore, the findings are consistent with the capital market pressure hypothesis (), which argues that firms with strong market reactions to earnings are more likely to adopt conservative financial practices to maintain investor confidence. Higher ERC suggests that investors closely analyze earnings quality, and any indication of aggressive tax planning could lead to negative stock price adjustments, reputational risks, or increased regulatory scrutiny. This explains why firms with high ERC exhibit a weaker link between tax strategies and tax avoidance, as they must balance tax minimization efforts with investor expectations for financial integrity.

However, for firms with low ERC, the results suggest that tax strategies play a stronger role in driving tax avoidance, as investor oversight is weaker, allowing managers greater flexibility in tax planning without immediate market consequences. This reinforces prior research by (Desai & Dharmapala, 2009), which highlights that firms with lower investor sensitivity to earnings are more likely to exploit aggressive tax strategies without facing significant capital market repercussions.

The moderating role of the Earnings Response Coefficient (ERC) in the relationship between tax strategies and tax avoidance underscores the importance of market discipline, investor perception, and corporate transparency, with significant implications for regulators, investors, and corporate managers. For regulators and policymakers, the findings suggest that firms with high ERC are already subject to market-driven oversight, reducing the need for stringent tax enforcement, whereas firms with low ERC may require stricter regulatory measures to prevent excessive tax avoidance. For investors and analysts, ERC serves as a key indicator of earnings quality and tax transparency, allowing them to better evaluate whether a firm's tax strategies align with sustainable financial practices or indicate potential financial manipulation. From a corporate management perspective, the results highlight that in firms with high ERC, aggressive tax avoidance may be counterproductive, as investors prioritize earnings credibility and transparency. Thus, firms should align tax planning with long-term shareholder value creation rather than focusing solely on short-term tax savings, ensuring that their tax strategies enhance financial stability while maintaining investor trust.

The findings confirm that ERC plays a crucial role in moderating the effect of tax strategies on tax avoidance. While firms with low ERC are more likely to engage in tax avoidance through aggressive tax strategies, those with high ERC face stronger investor scrutiny, reducing the impact of tax strategies on tax avoidance. These results emphasize the importance of investor perceptions in shaping corporate tax decisions and highlight the role of market discipline in influencing tax transparency. Future research could explore cross-country differences, corporate governance effects, and tax policy variations to further understand how ERC shapes tax strategy effectiveness.

The Effect of Business Strategies with Earnings Response Coefficient (ERC) as a Moderating Variable on Tax Avoidance

The panel least squares regression results indicate that the Earnings Response Coefficient (ERC) does not significantly moderate the relationship between business strategies and tax avoidance, as evidenced by the insignificant interaction coefficient (-0.016046, $p = 0.4750$). This suggests that regardless of a firm's strategic orientation—whether prospector, defender, or analyzer—ERC does not play a significant role in influencing tax avoidance behavior. In other words, investor sensitivity to earnings does not strengthen or weaken the effect of business strategies on tax avoidance, implying that tax planning decisions may be more influenced by financial, regulatory, and governance factors rather than business strategy or investor perception of earnings.

One possible explanation for this finding is that business strategies primarily focus on competitive positioning and operational efficiency, while tax avoidance is driven more by external tax regulations and firm-specific financial constraints. According to (Chen et al., 2010), firms across different strategic orientations tend to follow similar tax planning behaviors because they operate within the same legal and institutional tax frameworks. This means that even if investor reactions to earnings vary (as captured by ERC), it does not necessarily alter how business strategies influence tax decisions.

Additionally, the findings align with the institutional theory perspective (Arham et al., 2020), which suggests that firms conform to industry tax norms regardless of strategic differences to maintain legitimacy and competitive parity. Since tax planning is often dictated by legal tax codes and enforcement mechanisms, firms may adopt industry-standard tax practices irrespective of whether they are pursuing a prospector or defender strategy. This could explain why ERC fails to moderate the relationship, as business strategies alone do not create enough variation in tax behavior for investor responses to have a significant impact.

Another potential explanation is the role of corporate governance mechanisms, which may override both business strategies and ERC in shaping tax avoidance. According to (mousavi et al., 2022), firms with strong governance structures tend to implement transparent and responsible tax strategies regardless of their business strategy. If firms are already constrained by board oversight, investor activism, or compliance standards, then ERC is unlikely to further moderate the relationship between business strategy and tax avoidance.

The insignificance of the Earnings Response Coefficient (ERC) as a moderating variable in the relationship between business strategies and tax avoidance highlights that tax planning decisions are largely independent of both business strategy and investor sensitivity to earnings, with important implications for tax authorities, corporate decision-makers, and investors. For tax authorities and regulators, this finding suggests that business strategies do not drive tax avoidance, nor does ERC influence this relationship, reinforcing the need to focus regulatory enforcement on firm-level tax policies rather than strategic orientation or investor responses to earnings. For corporate decision-makers, the results indicate that since ERC does not moderate the impact of business strategies on tax avoidance, firms should recognize that tax planning is primarily shaped by financial and regulatory factors, requiring a dedicated approach to tax compliance and risk management. Additionally, for investors and analysts, the findings caution against assuming that firms with aggressive business strategies (such as prospectors) automatically engage in higher tax avoidance or that ERC significantly alters corporate tax behavior. Instead, investors should focus on a firm's governance structure, financial policies, and tax disclosure practices, which may serve as more reliable indicators of tax avoidance risks.

The findings confirm that the Earnings Response Coefficient (ERC) does not moderate the effect of business strategies on tax avoidance, implying that tax avoidance decisions are largely independent of both business strategy and investor reactions to earnings. This suggests that corporate tax planning is primarily shaped by external tax regulations, firm-specific financial strategies, and governance mechanisms, rather than by how firms compete in the market or how

investors perceive their earnings. Future research could explore the interaction between tax policy changes, industry-specific tax incentives, and governance mechanisms to better understand the key drivers of corporate tax behavior.

CONCLUSION

This study examines the relationship between tax strategies, business strategies, and tax avoidance, with the Earnings Response Coefficient (ERC) as a moderating variable. Using panel data regression analysis, the findings provide several key insights into how corporate tax planning is shaped by strategic decisions, investor reactions, and regulatory constraints.

The results indicate that tax strategies have a significant positive effect on tax avoidance, suggesting that firms implementing aggressive tax strategies tend to engage in higher levels of tax minimization. This finding aligns with prior research on corporate tax planning, reinforcing that firms strategically structure their tax obligations to maximize after-tax earnings. However, while such strategies provide short-term financial benefits, they may also expose firms to regulatory scrutiny, reputational risks, and legal consequences, highlighting the importance of balancing tax efficiency with long-term compliance and transparency.

Conversely, the results show that business strategies do not significantly affect tax avoidance, indicating that a firm's strategic orientation—whether prospector, defender, or analyzer—does not play a decisive role in shaping tax planning decisions. This suggests that tax avoidance behavior is primarily driven by financial and regulatory factors rather than competitive positioning, as firms across different strategic groups operate within similar tax compliance frameworks. The findings challenge assumptions that aggressive market-expanding firms engage in more tax avoidance, suggesting that industry norms, governance structures, and external tax regulations exert a greater influence on tax behavior than business strategies.

Furthermore, the study finds that ERC significantly moderates the relationship between tax strategies and tax avoidance, meaning that firms with higher investor sensitivity to earnings (higher ERC) exhibit weaker tax avoidance effects from tax strategies. This implies that market discipline and investor scrutiny can act as a constraint on aggressive tax planning, as firms with high ERC may face increased transparency expectations. However, ERC does not moderate the effect of business strategies on tax avoidance, suggesting that investor responses to earnings do not significantly alter the tax planning behaviors associated with different business strategies. This reinforces the idea that corporate tax decisions are shaped more by regulatory pressures and firm-specific financial constraints rather than by business strategy or investor perception of earnings.

These findings contribute to the literature on corporate tax planning and financial strategy by providing empirical evidence on the role of tax strategies, business strategies, and investor sensitivity (ERC) in tax avoidance. The study enhances understanding of how financial markets influence tax behavior, particularly by highlighting that investor monitoring can constrain aggressive tax strategies.

From a practical perspective, the findings of this study provide valuable insights for policymakers, investors, and corporate managers, emphasizing the importance of tax enforcement, earnings transparency, and sustainable tax planning. For regulators and tax authorities, the results suggest that tax enforcement and compliance mechanisms should be strengthened, as tax avoidance is influenced more by regulatory frameworks and financial incentives rather than a firm's strategic orientation. Rather than assuming that business strategy alone determines tax behavior, targeted tax policies should focus on firm-level compliance and risk assessment. For investors and analysts, the study highlights that the Earnings Response Coefficient (ERC) serves as a crucial indicator of earnings transparency and tax planning risks, as firms with higher ERC are less likely to engage in aggressive tax avoidance due to increased investor scrutiny. Lastly, for corporate executives and governance boards, the findings emphasize the need to align tax strategies with long-term financial sustainability, as excessive tax avoidance can lead to negative investor perceptions, regulatory penalties, and reputational damage. Firms must strike a balance between tax efficiency and ethical financial practices to maintain investor confidence and regulatory compliance.

While this study provides valuable insights, some limitations should be acknowledged. First, the study focuses on publicly listed manufacturing firms, which may limit the generalizability of findings to other industries with different tax structures. Second, the study does not account for tax policy changes over time, which may influence firm tax behavior. Future research should explore cross-industry and cross-country comparisons, considering how global tax regulations, corporate governance structures, and economic conditions affect the relationship between tax strategies, business strategies, and tax avoidance.

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