



PROCEEDINGS OF THE INTERNATIONAL CONFERENCE 2025 ON ECONOMIC AND BUSINESS DEVELOPMENT IN THE NEW ERA

University of Economics, Hue University, June, 2025



KỶ YẾU

HỘI THẢO KHOA HỌC QUỐC TẾ 2025

PHÁT TRIỂN KINH TẾ VÀ KINH DOANH TRONG KỶ NGUYÊN MỚI

HUE UNIVERSITY PUBLISHING HOUSE
Hue, 2025

CONTENTS

	Page
TRANSBOUNDARY FLOOD MANAGEMENT IN THE LOWER MEKONG BASIN: CHALLENGES AND POLICY GAPS	1
<i>Hoang Ha Anh</i> <i>Nong Lam University, Ho Chi Minh, Vietnam</i>	
THE LEGAL FRAMEWORK REGULATING THE INANCIALIZATION OF CARBON CREDITS IN THE CAPITAL MARKET	21
<i>Nguyen Thi Duc, Tang My Sang</i> <i>Ho Chi Minh City University of Banking, Vietnam</i>	
GREENING VIETNAM'S TEXTILE GARMENT SUPPLY CHAIN TOWARD CIRCULAR ECONOMY	31
<i>Nguyen Ngoc Quyen</i> <i>Thai Nguyen University of Economics and Business Administration, Vietnam</i>	
THE IMPACT OF INNOVATION ON SUSTAINABLE ENTREPRENEURIAL PERFORMANCE IN VIETNAM'S CIRCULAR ECONOMY CONTEXT	49
<i>Nguyen Van Toai, Doan Van Trai</i> <i>Ho Chi Minh City University of Industry and Trade, Vietnam</i>	
RENEWABLE ENERGY, CO ₂ EMISSIONS AND ECONOMIC GROWTH IN VIETNAM IN SUSTAINABLE DEVELOPMENT	68
<i>Hoang Bich Phuong</i> <i>National Economics University, Vietnam</i>	
EXAMINING THE DRIVERS OF PAYMENT FOR GREEN INFRASTRUCTURE AS A STRATEGY FOR URBAN FLOOD MANAGEMENT	80
<i>Nguyen Hoang Diem My, Nguyen Duc Kien,</i> <i>Du Anh Tho, Pham Xuan Hung</i> <i>Bui Dung The, Tran Van Hoa, Bui Duc Tinh</i> <i>University of Economics, Hue University, Vietnam</i>	
INFLUENCE OF GREEN INCLUSIVE LEADERSHIP ON VOLUNTARY EMPLOYEE GREEN BEHAVIOR IN TEXTILE AND GARMENT COMPANIES IN HUE CITY	94
<i>Nguyen Anh Duong, Le Thi Phuong Thao,</i> <i>Hoang Trong Hung, Nguyen Thi Mai</i> <i>University of Economics, Hue University, Vietnam</i>	
EXPLORING THE ROLE OF CULTURAL AND BEHAVIORAL FACTORS IN GREEN FOOD PURCHASE INTENTION: A QUALITATIVE STUDY IN VIETNAM	111
<i>Nguyen Thi Minh Huong, Hoang Huu Trung</i> <i>University of Economics, Hue University, Vietnam</i>	
THE IMPACT OF DIGITAL TRANSFORMATION LEVEL AND DIGITAL CAPABILITY ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN VIETNAM	124
<i>Nguyen Xuan Vinh</i> <i>Danang Architecture University, Vietnam</i>	

VIETNAMESE E-COMMERCE IN THE CONTEXT OF DIGITAL TRANSFORMATION: AN EMPIRICAL PERSPECTIVE FROM ENTERPRISES	143
<i>Mai Xuan Binh, Nguyen Huy Tuan, Dang Thien Tam</i>	
<i>Duy Tan University, Vietnam</i>	
RESEARCH ON THE IMPACT OF DIGITAL TECHNOLOGY APPLICATION IN IMPROVING BUSINESS EFFICIENCY IN TOURISM INDUSTRY: THE MEDIATING ROLE OF ONLINE ENGAGEMENT, TOURISTS' GREEN TOURISM AWARENESS	160
<i>Tran Thu Huong¹, Nguyen Thi Minh Tuyen², Do Hien Hoa³</i>	
<i>¹Dong Nai Technology University, Bien Hoa City, Vietnam</i>	
<i>²Dong A University, Da Nang City, Vietnam</i>	
<i>³Industrial University of Ho Chi Minh City, HCM city, Vietnam</i>	
FACTORS INFLUENCING AI ADOPTION BY SMALL AND MEDIUM-SIZED ENTERPRISES IN DEVELOPING COUNTRIES – VIETNAMESE CONTEXT	182
<i>Dieu Thuong HA, My TRAN</i>	
<i>Stanley College, Australia</i>	
THE FACTORS LINKING TO THE ADOPTION OF DIGITAL MARKETING IN TOURISM SMES IN PHONG NHA	199
<i>Tran Hanh Loi, Nguyen Duc Kien, Pham Xuan Hung</i>	
<i>University of Economics, Hue University, Vietnam</i>	
CONSUMER BEHAVIOR IN ONLINE BANKING UNDER THE INFLUENCE OF SOCIAL MEDIA MARKETING	211
<i>Tang My Ha</i>	
<i>Ho Chi Minh City University of Economics and Finance, Vietnam</i>	
FACTORS AFFECTING CRYPTOCURRENCY ADOPTION IN VIETNAM: A STUDY OF INDIVIDUAL CONSUMERS	223
<i>Nguyen Thai Dung¹, Dinh Ngoc Long², Duong The Duy³</i>	
<i>¹Van Hien University; ^{2,3}Ho Chi Minh University of Foreign Language and Information Technology, Vietnam; ³Tomas batá University In Zlin</i>	
ENHANCING FINTECH ADOPTION: THE MEDIATING ROLES OF PERCEIVED VALUE AND SATISFACTION IN A FRAMEWORK OF TECHNOLOGY, INFORMATION SYSTEMS, AND PSYCHOLOGICAL RESPONSES	241
<i>Le Trung Nhan, Nguyen Van Tho, Vo Van Ban</i>	
<i>Ho Chi Minh University of Banking, Vietnam</i>	
THE EFFECT OF PSYCHOLOGICAL WELL-BEING AND PERCEIVED ORGANIZATIONAL SUPPORT ON EMPLOYEE WORK ENGAGEMENT IN VIETNAM SECURITIES FIRMS	257
<i>Cao Tran Thanh Trung¹, Choon Jin Teh², Poh Kiong Tee³</i>	
<i>^{1,2}School of Marketing and Management, Asia Pacific University of Technology & Innovation, Kuala Lumpur, Malaysia</i>	
<i>³School of Management and Business, MILA University, Nilai, Malaysia</i>	

BOARD TRAITS AND FIRMS' COST OF DEBT IN VIETNAM	271
<i>Phuoc Vu Ha</i> <i>University of Economics, The University of Danang, Vietnam</i>	
TRANSPARENT AND AUTOMATED VEHICLE INSURANCE PROCESS USING BLOCKCHAIN TECHNOLOGY	280
<i>Minh Duc Nguyen</i> <i>University of Economics, Hue University, Vietnam</i>	
APPLICATION OF MACHINE LEARNING AND DEEP LEARNING TO PORTFOLIO OPTIMIZATION UNDER FORECAST ERROR IN THE VIETNAMESE STOCK MARKET	287
<i>Minh Duc Nguyen, Quoc Khang Pham</i> <i>University of Economics, Hue University, Vietnam</i>	
HOW DOES CREDIT USAGE IMPACT HOUSEHOLD WELFARE?	302
<i>Nguyen Thai Phan</i> <i>University of Economics, Hue University, Vietnam</i>	
THE OPTIMAL HYBRID GARCH- GRADIENT BOOSTING REGRESSOR MODEL FORECASTS THE VOLATILITY OF LAFOOCO (LAF.VN) STOCK IN THE CONTEXT OF THE U.S. RECIPROCAL TARIFF SUSPENSION	310
<i>Tran Ba Thuan</i> <i>University of Economics, Hue University, Vietnam</i>	
THE EFFECT OF BOARD SIZE ON FIRM PERFORMANCE: EVIDENCE FROM VIETNAM	323
<i>Nguyen Thi Thanh Binh¹, Ha Phuoc Vu²</i> <i>^{1*}University of Economics, Hue University, Vietnam</i> <i>²University of Economics, The University of Danang Vietnam</i>	
DO THE LARGEST VIETNAMESE CORPORATE INCOME TAXPAYERS AVOID TAXES?	339
<i>Pham Thi Hong Quyen</i> <i>University of Economics, Hue University, Vietnam</i>	
UNDERSTANDING CONSUMER INITIAL TRUST IN AI-POWERED SERVICE CHATBOT: THE CASE STUDY IN ONLINE RETAIL BANKING IN HUE CITY	353
<i>Bui Thi Thanh Nga, Nguyen Thi Thuy Dat</i> <i>University of Economics, Hue University, Vietnam</i>	
EVALUATE THE EFFECTIVENESS OF PRICE PREDICTION MODELS AND DEVELOP DECISION SUPPORT SYSTEMS FOR TRADER ON BINANCE	370
<i>Truong An Binh¹, Nguyen Thanh Tuan²</i> <i>¹IRTECH JSC; ²University of Economic, Hue University, Vietnam</i>	
HOW TO MEASURE THE IMPACT OF CLIMATE RISK ON BANK PROFITABILITY IN MALAYSIA AND INDONESIA	390
<i>Ilinka ANTOVA, Marcellin YOVOGAN</i> <i>Sofia University Saint Kliment Ohridski, Bulgaria</i>	

DO THE LARGEST VIETNAMESE CORPORATE INCOME TAXPAYERS AVOID TAXES?

Pham Thi Hong Quyen

University of Economics, Hue University, Vietnam

pthquyen@hce.edu.vn, +84912752527

ABSTRACT

This study aims to assess the prevalence of tax avoidance practices among Vietnam's largest corporate income taxpayers, while also comparing these behaviours across different industries. Utilizing Effective Tax Rate (ETR) indicators-including Accounting ETR, Current ETR, Cash ETR, and Cash Flow ETR-the research examines data from the largest non-financial corporate income taxpayers listed on the Hochiminh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) from 2017 to 2022. The findings indicate that, despite being significant contributors to tax revenue, these companies employ legal tax avoidance strategies to reduce their tax liabilities, as reflected in the lower Accounting and Current Effective Tax Rates (ETR). Conversely, the Cash ETR and Cash Flow ETR do not show similar avoidance tendencies due to their differing measurement approaches. Furthermore, the degree of tax avoidance varies by industry, with the Utilities sector exhibiting the highest level of avoidance, while the Industrial sector shows the least. No significant regional differences were noted. These results underscore the need for tax authorities to refine their management strategies and enhance oversight to mitigate tax avoidance, thereby laying a foundation for future research on the determinants of such practices.

Keywords: *Corporate income tax; Effective tax rate; Largest taxpayers; Tax avoidance*

JEL codes: *H26*

1. INTRODUCTION

Tax is the largest source of revenue in the state's total budget, surpassing other sources such as loans, foreign aid, the sale of national resources, and other revenues. It is also essential for the state to maintain revenue to meet people's needs (World Bank, 2023). However, to survive and develop under the pressure of fierce competition in the context of global economic integration, businesses must continually strive to optimize financial benefits; therefore, tax avoidance becomes one of the key measures to achieve this goal (Lee & Kao, 2018). Tax avoidance will erode the tax base, reduce revenue, limit the ability to invest in public services, and compromise the provision of public services, thereby destabilizing the budget balance (Slemrod, 2004). When tax revenue decreases, pressure will be put on increasing revenue from other sources or cutting public spending, potentially causing risks to the slow development of infrastructure and education, key factors for sustainable growth. In the long term, this can hinder sustainable economic

development. This is true for most countries, especially developing and underdeveloped countries, including Vietnam.

According to IMF statistics (2019, 2021, 2023), Corporate Income Tax (CIT) plays a vital role in budget revenue, contributing approximately 17-20% of Vietnam's total domestic revenue (excluding revenue from crude oil) from 2018 to 2022. In addition, the General Department of Taxation of Vietnam (2023) reported that the majority of CIT revenue comes from large enterprises; Specifically, in the period 2018 - 2022, the large enterprise sector (including 1,000 enterprises in the V1000 list announced by the General Department of Taxation), although accounting for a tiny proportion of the total number of operating enterprises, equivalent to about 0.2%, contributed relatively large amounts to the total state budget revenue from corporate income tax, approximately 60%. It can be seen that the loss of tax revenue from this enterprise sector will significantly affect the national budget. Do these enterprises engage in tax avoidance activities? This is an urgent question that requires an immediate answer. In short, large enterprises make a significant contribution to the total state budget revenue. However, tax management activities for large enterprises are becoming increasingly complex and complicated as Vietnam faces significant challenges related to tax compliance and risk management for large enterprises (Nguyen Van Phung and Nguyen Thi Ngoc Lan, 2020). There are very few studies on tax compliance risks or tax avoidance activities of large taxpayers in developing countries, including Vietnam.

Therefore, to diversify the empirical evidence on tax avoidance research in the world in general and in Vietnam in particular, the topic decided to approach large taxpayers that are in the list of 1000 largest taxpayers published by the General Department of Taxation and listed on the Vietnam Stock Exchange, except for enterprises operating in the financial and banking sectors because the specific characteristics of these types of enterprises are not suitable in terms of data for comparison as well as developing research variables. Approaching a sample of hefty corporate income tax-paying enterprises can be considered a new study point.

2. CONCEPTUAL FRAMEWORK

2.1. Definition of Tax avoidance

In the field of tax research, many scholars have defined “tax avoidance” to clarify the strategic aspects, methods, and goals of optimizing an enterprise's tax burden within the legal framework. Specifically, Scholes and Wolfson (1992) described tax avoidance as the arrangement of transactions and financial structures to exploit loopholes in the tax system, thereby reducing tax obligations without violating the law. According to Hines and Rice (1994), multinational corporations engage in tax avoidance by shifting profits from high-tax regions to low-tax regions, thereby exploiting the differences between international tax systems.

Desai and Dharmapala (2006) expanded the concept by defining tax avoidance as the process of adjusting transaction and financial structures to lower the effective tax rate (ETR) and thereby increase the value of the enterprise. In parallel, Hanlon and Heitzman (2010) introduced tax avoidance measures, such as the

Effective Tax Rate (ETR) and Book–Tax Difference (BTD), to clarify the relationship between tax policy and corporate financial behaviour.

Many other studies (Minnick & Noga, 2010; Lanis & Richardson, 2011; Richardson et al., 2015; Hoseini et al., 2019) agree that tax avoidance is the process of designing and arranging transaction, financial and accounting structures to exploit tax incentives and inconsistencies, thereby legitimizing the reduction of tax obligations. On a broader level, some scholars argue that tax avoidance is not only an accounting practice but also a comprehensive strategy, in which enterprises combine tax incentives and governance reforms to optimize business performance within the legal framework (Armstrong et al., 2015; Abdul Wahab et al., 2017; Hsieh et al., 2018). In Vietnam, recent studies by Kalbuana et al. (2023), Ha Kieu Oanh (2021), and Pham et al. (2024) also confirm that tax avoidance is a strategy used to optimize tax obligations by exploiting loopholes and incentives within the current tax system.

In short, tax avoidance is a complex financial strategy designed to optimize tax liability and increase corporate value within the legal framework, which differs significantly from tax evasion – an illegal behavior involving measures such as not declaring income, falsifying expenses, or creating false records (Dover et al., 2015; Slemrod & Yitzhaki, 2002). This view has been widely agreed upon and supported by numerous studies, including those by Graham and Tucker (2006), Desai and Dharmapala (2009), Chen et al. (2010), Armstrong et al. (2015), Abdul Wahab et al. (2017), and Hsieh et al. (2018).

2.2. Tax avoidance measurement

The effective tax rate (ETR) and the difference between accounting profit and taxable income (BTD) are two standard measures in tax avoidance research. These measures capture different aspects of tax avoidance, but neither fully encapsulates corporate tax avoidance behaviour. Lietz (2013) has categorized tax avoidance measures within the conceptual framework of corporate tax planning, with ETR-based measures positioned on the left side, aligning with the thematic concept of tax avoidance.

Table 1. Proxy variables measuring tax avoidance based on effective tax rates

Variable name	Calculation formula	
Accounting ETR	Total corporate income tax expense/Pre-tax accounting income	Hanlon & Heitzman (2010); Pham et al. (2024)
Current ETR	Current corporate income tax expense/Pre-tax accounting income	Salihu et al. (2013)
Cash ETR	Corporate income tax paid/ Pre-tax accounting income	Chen et al. (2010); Dyreng et al. (2010)
Cash Flow ETR	Total corporate income tax expense/Net cash flow from operating activities	Zimmerman (1983); Salihu et al. (2013)

(Source: Author's synthesis, 2024)

In Vietnam, corporate income tax is calculated based on the product of taxable income and the statutory tax rate, using mainly audited financial statements. Information relating to accounting profit before tax, tax expense, current tax expense, tax payment amount, and net cash flow from the company's business

activities is publicly disclosed. Therefore, this study employs a combination of ETR-based measures, including Accounting ETR, Current ETR, Cash ETR, and Cash Flow ETR, to assess the tax avoidance behaviour of Vietnamese companies. The choice of ETR-based measures is consistent with the study's objective, which is to evaluate a company's overall capacity to minimize its tax burden without detailing the specific nature of its activities.

2.3. Relevant Theories

Theories of corporate tax avoidance offer comprehensive insights into how firms strategically optimize their tax liabilities through legal planning and risk management. The Tax Optimization Theory, rooted in the foundational work of Modigliani and Miller (1958) and further refined by Desai and Dharmapala (2006), posits that companies strive to minimize tax expenses in order to maximize after-tax profits and enhance shareholder value. Multinational corporations often reduce their tax burdens by shifting profits to jurisdictions with lower tax rates, utilizing transfer pricing and exploiting tax havens. At the same time, they carefully balance the benefits of tax reduction against potential legal risks, such as audits, within the constraints of existing regulations, as highlighted by Hanlon and Heitzman (2010).

Complementing this view is the Corporate Governance Theory, which emerged from the research of Jensen and Meckling (1976). This perspective posits that a company's internal oversight and accountability quality significantly affects its tax avoidance behaviour. Firms with weaker governance structures may pursue aggressive tax avoidance strategies to secure short-term gains, despite the long-term risks of reputational damage and financial penalties. In contrast, companies with robust and transparent governance systems tend to adopt more conservative tax policies, minimizing the extent of tax avoidance. This idea is supported by research from Lanis and Richardson (2012), which suggests that responsible boards and effective control processes play a crucial role in curbing risky tax management practices.

Another key framework is the Legal Environment and Regulation Theory. This theory emphasizes that the variability and ambiguity in legal frameworks across different jurisdictions create exploitable gaps in the tax system, allowing for opportunities for tax evasion. Slemrod (2001) contends that inconsistent enforcement and vague rules enable companies to shift profits more easily to low-tax regions, thereby reducing their overall tax liabilities.

The Financial Incentive Theory also suggests that financial motivations primarily drive corporate tax avoidance. Desai and Dharmapala (2006) argue that reducing tax obligations allows companies to free up capital for investment in new projects or to distribute higher dividends, which is particularly crucial for firms operating with slim profit margins. This financial flexibility can provide a significant competitive edge in dynamic markets.

In summary, corporate tax avoidance is a multifaceted phenomenon influenced by financial incentives, the quality of corporate governance, and the legal and regulatory landscape. Companies focus on maximizing immediate profits,

mitigating risks, and creating long-term value by employing diverse strategies to minimize their tax liabilities.

3. RESEARCH METHODS

3.1. Research data

The study utilizes data from 2017 to 2022, focusing on 125 listed companies identified as part of the top 1,000 largest corporate income tax payers, as listed in the annual public report provided by the General Department of Taxation. To maintain data integrity, the study excludes all firm-years that report negative pre-tax profits and observations with effective tax rates (ETRs) that fall outside the range of 0 to 1. These outlier values result from negative or excessively small denominators, which can lead to negative ETR, values of zero, or values exceeding one, situations that are not economically meaningful. Tax efficiency studies commonly exclude such cases to prevent distributional distortions and minimize type I errors (Hanlon & Heitzman, 2010; Frank et al., 2009; Minnick & Noga, 2010; Blaylock et al., 2012). After cleansing the data, the final dataset comprises 381 firm-year observations used for analyses comparing the effective tax rate (ETR) with statutory tax rates (STR).

3.2. Data analysis techniques

Descriptive Statistics:

The statistics compare the companies' mean effective tax rate (ETR) with the corporate income tax rate prescribed by law (STR). According to Vietnamese tax law, the corporate income tax rate is 20% during the research period. If the ETR is lower than the STR, companies are likely to engage in tax avoidance. Additionally, the more significant the difference between the mean ETR and STR, the more the company avoids taxes. Conversely, the smaller the difference between the mean ETR and STR, the less the company avoids taxes.

Comparing the mean effective tax rate (ETR) to the statutory rate (STR) serves as a widely accepted benchmark for assessing tax erosion at the systemic level (Hanlon & Heitzman, 2010). This metric aligns closely with the paper's objective: to estimate the loss of corporate income tax revenue among the largest taxpayers as a group, rather than focusing on individual firms. Its utility is well demonstrated in the work of Dyreng et al. (2008), which highlights that the mean cash ETR–STR gap identifies 25% of U.S. firms that maintain long-term cash tax rates below the statutory rate. Additionally, the OECD has recognized the mean Effective Tax Rate (ETR) as a key indicator in BEPS Action 11 (OECD, 2015). Consequently, comparing the mean ETR to the STR threshold is consistent with academic practice and provides a solid quantitative foundation for policies aimed at mitigating corporate income tax loss.

Given that firm-specific tax incentive data are often not fully disclosed, it is standard practice in studies to use the general tax rate (20% in Vietnam)-the headline rate-as the recommended benchmark when micro-incentive data are unavailable (Hanlon & Heitzman, 2010; Atwood et al., 2012). Even if a firm benefits from a 10–15% incentive, if its effective tax rate (ETR) remains below 20%, measurement error tends to reduce the ETR–STR difference rather than exaggerate it, introducing a bias toward zero and rendering the analyses more

conservative (Wooldridge, 2010). Moreover, projects eligible for incentives constitute only a small fraction of listed firms (Ministry of Finance, 2024), making any residual bias economically insignificant. Therefore, the general tax rate threshold of 20% is not only empirically feasible and statistically conservative but also entirely in line with international research practices.

Test of the mean value:

- Test of Mean Value ETR: Compare the mean value of the Effective Tax Rate (ETR) with the Statutory Tax Rate (STR) using a One-sample T-Test, with the hypotheses $H_0: ETR = 0.2$ and $H_1: ETR \neq 0.2$. If the significance level (Sig.) is greater than 0.05, there is insufficient evidence to reject H_0 , indicating that ETR equals STR and the company is not evading taxes. If the significance level is less than 0.05, we reject H_0 , meaning that ETR differs from STR. The mean difference will indicate whether ETR is higher or lower than STR, providing an assessment of the level of tax avoidance. While the research hypothesis suggests a lower Effective Tax Rate (ETR) compared to the Statutory Tax Rate (STR), the paper employs a two-tailed test to maintain scientific validity across three key aspects. First, employing a two-tailed test imposes a more stringent rejection threshold, thereby minimizing the risk of Type I error, particularly in the context of a large sample size (Angrist & Pischke, 2009). Second, accounting data may indicate an effective tax rate (ETR) exceeding 20% due to deferred tax recovery or collection. A two-tailed test enables the identification of both increases and decreases in the ETR-STR gap, ensuring that significant economic insights are not overlooked (Blaylock et al., 2012). Third, this approach aligns with the practices of foundational studies, such as those by Dyreng et al. (2008) or Lanis and Richardson (2011), which is crucial for maintaining the comparability of results in academic reviews. Thus, the choice of a two-tailed test is both statistically conservative and in line with international research standards.

- Analysis of the comparison of Effective Tax Rate (ETR) between groups: The study employs one-way ANOVA with the following hypotheses: H_0 , the mean ETR of the groups is the same, and H_1 , the mean ETR of the groups is different. If the significance level (Sig.) is less than 0.05, it indicates a statistically significant difference in ETR between groups, meaning there is a statistically significant difference in tax avoidance. Conversely, there is no difference if the significance level is more than 0.05. Before this, Levene's test was conducted to check the uniformity of variance between groups, and the appropriate test (Welch or ANOVA) was chosen based on the test results.

4. RESULTS AND DISCUSSION

4.1. Measuring the tax avoidance of the largest Vietnamese corporate income taxpayers

Table 2. Statistics of the variable mean value

Variables	Number of observations	Min	Max	Mean	Standard deviation
Accounting ETR	381	0.0029	0.7459	0.1814	0.0626
Current ETR	381	0.0008	0.7459	0.1839	0.0648

Cash ETR	381	0.0072	0.8592	0.1913	0.0958
Cash Flow ETR	381	0.0011	0.9810	0.2207	0.1732

(Source: Research results, 2025)

This analysis aims to determine whether companies implemented tax avoidance during the research period. To achieve this, the study conducts statistical tests, comparing the mean value of the effective corporate income tax rate (ETR) with the statutory corporate income tax rate of 20% in Vietnam.

The average ETR values presented in Table 2 suggest that companies may have engaged in tax avoidance activities during the research period, as assessed using the Accounting ETR, Current ETR, and Cash ETR metrics, since the mean values of these indicators fall below the Vietnamese statutory tax rate of 20%. The increasing level of tax avoidance by companies is indicated by the decreasing mean value of effective tax rates (ETR), with Accounting ETR (Mean = 0.1814), Current ETR (Mean = 0.1839), and Cash ETR (Mean = 0.1913) exhibiting this trend. In contrast, the Cash Flow ETR (Mean = 0.2207) does not appear to capture such tax avoidance behaviour, as its average exceeds the statutory rate.

Table 2 reveals that the Effective Tax Rate (ETR) indices show significant variation from the statutory tax rate of 20%. This discrepancy reflects legitimate mechanisms within the Vietnamese tax system, rather than any data biases, and clearly illustrates the dispersion within the sample. The lower bound occurs in years when businesses benefit from tax exemptions or reductions, or when they can offset losses, resulting in tax expenses that are nearly zero despite reporting positive profits. Conversely, the upper bound is seen when accounting profits are close to break-even; however, taxable income is increased by non-deductible expenses, resulting in tax expenses that approximate pre-tax profits.

Table 3 reveals that the t-test results for the Accounting ETR (Sig = 0.000), Current ETR (Sig = 0.000), and Cash Flow ETR (Sig = 0.020) are all significant at the 5% level, indicating a statistically significant difference between the mean values of these indices and the statutory tax rate of 20%. However, only the Accounting ETR and Current ETR exhibit negative mean differences (Accounting ETR's mean difference = -0.0186, Current ETR's mean difference = -0.0161), suggesting that the effective tax rates measured by these indices are below the statutory rate and that companies may have engaged in tax avoidance during the study period. Notably, the absolute mean difference is more significant for the Accounting ETR than the Current ETR ($|\text{Accounting ETR's mean difference}| = 0.0186 > |\text{Current ETR's mean difference}| = 0.0161$), implying a greater degree of tax avoidance as captured by the accounting measure. In contrast, the Cash Flow ETR has a positive mean difference (0.0207), indicating that the effective tax rate based on this index exceeds the statutory rate, which does not support evidence of tax avoidance. Additionally, the t-test for the Cash ETR (Sig = 0.077) is above the 5% significance threshold, showing no statistically significant difference from the statutory tax rate of 20%. This means there is no basis to assert that companies

engaged in tax avoidance during the study period when assessed by the cash effective tax rate (Cash ETR).

Table 3. Test of the variable mean value

Variables	<i>Test value = 0.2</i>					
	t	df	Sig.	Mean difference	95% Confidence	
					Lower	Upper
Accounting ETR	-5.804	380	0.000	-0.0186	-0.0249	-0.0123
Current ETR	-4.843	380	0.000	-0.0161	-0.0226	-0.0096
Cash ETR	-1.775	380	0.077	-0.0087	-0.0184	0.0009
Cash Flow ETR	2.332	380	0.020	0.0207	0.0032	0.0381

(Source: Research results, 2025)

In the context of Vietnam's largest corporate income taxpayers, scale characteristics, complex financial structures, and diverse revenue sources present unique challenges in measuring tax avoidance activities. The variance in the ability to assess tax avoidance behaviour among companies stems from the measurement mechanisms employed for the indicators in question. Specifically, indicators such as the Accounting ETR and Current ETR rely on data recorded in financial statements, which directly reflect tax adjustments to reduce tax liabilities and are less influenced by external factors. This approach is particularly well-suited for large enterprises, where financial reporting tends to be standardised and rigorously controlled, allowing for the clear identification of tax reduction strategies. In contrast, Cash ETR and Cash Flow ETR are significantly impacted by factors related to the timing of payments, methods of tax transfers, and fluctuations in cash flow due to the diverse and intricate nature of these large enterprises' business activities. These elements can obscure direct comparisons between the statutory tax rate and the actual tax paid, ultimately diminishing the effectiveness of detecting tax avoidance measures through these indicators.

Given Vietnam's largest taxpayers' operational and financial management characteristics, the Accounting ETR and the Current ETR are more effective tools for measuring tax avoidance activities. These metrics directly reflect the optimization of tax obligations through adjustments made in financial statements. Consequently, this study will conduct an in-depth analysis on two measures-Accounting ETR and Current ETR-to better identify differences in tax avoidance behaviour among business groups.

4.2. Tax avoidance of the largest Vietnamese corporate income taxpayers in different aspects

4.2.1. Differences in tax avoidance among companies by field

Table 4 demonstrates that while the effective tax rates (ETR) vary across industries, all are below the statutory tax rate of 20%. This indicates that companies in different sectors have reduced their tax burdens during the study period, albeit to varying degrees.

The Utilities industry has the lowest average Effective Tax Rate (ETR), reflecting the highest level of tax avoidance, as indicated by Accounting ETR (mean = 0.1566) and Cash Flow ETR (mean = 0.1624). Conversely, the Industrial sector reports the highest average ETR, suggesting it avoids the least taxes when measured by Accounting ETR (mean = 0.1877). Additionally, the Other industry exhibits the least tax avoidance, as evaluated by the current effective tax rate (mean = 0.1947). These variations may stem from the distinct operational characteristics of each industry and the differing methodologies used to calculate the measurement indicators.

Table 4. Statistics of mean values of ETR variables by business sectors

Fields	Variables	Number of observations	Min	Max	Mean	Standard deviation	Standard error
Industrials	Accounting ETR	119	0.0029	0.5287	0.1877	0.0529	0.0048
	Current ETR	119	0.0008	0.3019	0.1877	0.0494	0.0045
Materials	Accounting ETR	75	0.0442	0.7459	0.1860	0.0950	0.0110
	Current ETR	75	0.0442	0.7459	0.1855	0.0953	0.0110
Consumer Goods	Accounting ETR	77	0.0770	0.2917	0.1854	0.0388	0.0044
	Current ETR	77	0.0770	0.2823	0.1870	0.0398	0.0045
Consumer Services	Accounting ETR	13	0.0634	0.2844	0.1805	0.0734	0.0204
	Current ETR	13	0.0436	0.2868	0.1884	0.0874	0.0243
Utilities	Accounting ETR	59	0.0504	0.3246	0.1566	0.0589	0.0077
	Current ETR	59	0.0477	0.3270	0.1624	0.0612	0.0080
Other	Accounting ETR	38	0.1005	0.2578	0.1833	0.0419	0.0068
	Current ETR	38	0.0756	0.4758	0.1947	0.0685	0.0111

(Source: Research results, 2025)

Levene's test indicates that the variances of Accounting ETR and Current ETR are significantly different, with Sig values of 0.004, which is below the 5% significance level (Table 5). Therefore, the study employs Welch's test for both indicators to conclude that there is a significant difference in average ETR values across different industries.

Table 5. Levene's test of variables by business sectors

Variables	Levene test	df1	df2	Sig.
Accounting ETR	3.471	5	375	0.004
Current ETR	3.555	5	375	0.004

(Source: Research results, 2025)

The p-value obtained from the Welch test (Table 6) for the Accounting ETR is below 0.05, indicating a statistically significant difference in the mean ETR across various industries. This finding suggests that tax avoidance activities vary among companies operating in different sectors. Each industry possesses unique operational characteristics, which create distinct "opportunities" for tax avoidance. Consequently, it is reasonable to expect differences in tax avoidance behaviour among firms across industries. Specifically, the average Accounting ETR values presented in Table 4 reveal that companies in the Industrial sector are the least tax-avoidant. In contrast, those in the Utilities sector tend to exhibit the highest levels of tax avoidance.

In contrast, the p-value from the Welch test (Table 6) for the Current ETR exceeds 0.05, indicating insufficient evidence to assert a difference in the mean ETR

between industries. In other words, when assessing tax avoidance through the lens of the Current ETR, there appears to be no significant difference in tax avoidance levels across different industries.

Table 6. Welch test of variables by business sectors

Variable	Statistic ^a	df1	df2	Sig.
Accounting ETR	2.549	5	86.410	0.034
Current ETR	1.817	5	84.079	0.118

(Source: Research results, 2025)

4.2.2. Differences in tax avoidance among companies by regions

The data in Table 7 regarding the mean ETR values indicate that companies operating in various regions demonstrated differing degrees of tax avoidance during the study period. Both measures reflect a consistent trend across these regions. Notably, companies in Vietnam's Central region exhibited the highest level of tax avoidance, as evidenced by the lowest mean effective tax rates (Accounting ETR's mean = 0.1774; Current ETR's mean = 0.1791). The accounting ETR revealed a more pronounced trend of tax avoidance, reflected in its lower mean value. In contrast, companies in the Northern region also tended to avoid taxes, with mean ETR values of 0.1869 for Accounting ETR and 0.1870 for Current ETR. Although the Accounting ETR in this region showed a higher level of tax avoidance with a lower mean value, the difference between the two indices was not substantial.

Table 7. Statistics of mean values of ETR variables by regions

Regions	Variables	Number of observations	Min	Max	Mean	Standard deviation	Standard error
North	Accounting ETR	125	0.0029	0.7459	0.1869	0.0803	0.0072
	Current ETR	125	0.0008	0.7459	0.1870	0.0776	0.0069
Central	Accounting ETR	32	0.0770	0.2979	0.1774	0.0425	0.0075
	Current ETR	32	0.0770	0.2979	0.1791	0.0434	0.0077
South	Accounting ETR	224	0.0442	0.4747	0.1789	0.0530	0.0035
	Current ETR	224	0.0442	0.4758	0.1829	0.0595	0.0040

(Source: Research results, 2025)

The Levene test's Sig-value (Table 8) for both Accounting ETR and Current ETR exceeds 0.05, indicating that the variance between regions is homogeneous. Thus, the study concludes with the F-test (ANOVA) for both indicators.

Table 8. Levene test by regions

Variables	Levene test	df1	df2	Sig.
Accounting ETR	1.247	2	378	0.289
Current ETR	1.184	2	378	0.307

(Source: Research results, 2025)

The F-test Sig values of the two indices are > 0.05 (Table 9), meaning there is no difference in the mean ETR values between different regions. Thus, there is no difference in the level of tax avoidance between companies in different business regions.

Table 9. ANOVA test of the variable by regions

		Sum of Squares	df	Mean Square	F	Sig.
Accounting ETR	Between groups	0.006	2	0.003	0.726	0.485
	Within groups	1.482	378	0.004		
	Total	1.488	380			
Current ETR	Between groups	0.002	2	0.001	0.255	0.775
	Within groups	1.594	378	0.004		
	Total	1.596	380			

(Source: Research results, 2025)

5. CONCLUSION AND RESEARCH IMPLICATIONS

This study employs Effective Tax Rate (ETR) indicators to assess whether Vietnam's largest corporate income tax payers have engaged in tax avoidance during the specified period. Additionally, it aims to compare tax avoidance behaviours across various industries and operational sectors. The practical significance of this research lies in the essential role that large tax contributors play in generating budget revenues from corporate income tax, which is vital for promoting the country's sustainable development.

The research findings indicate that, although the largest companies in Vietnam are recognized as significant contributors to tax revenue, they still engage in tax avoidance practices. These companies employ various strategies to optimize their after-tax profits and enhance their competitiveness. Due to their substantial scale and resources, they can identify and exploit legal loopholes within the existing tax framework, enabling them to implement complex transaction structures. Such strategies include shifting profits to low-tax jurisdictions, capitalizing on tax incentives, and utilizing a range of tax planning techniques. Often, these firms maintain teams of tax, financial, and legal experts with extensive experience, ensuring that their methods for reducing tax liabilities remain compliant with legal standards. They carefully evaluate the benefits of tax savings against potential legal risks. As a result, these companies alleviate their financial burdens, generate capital for strategic investments, increase shareholder value, and strengthen their market positions, particularly in the context of global economic integration.

The research findings suggest that various metrics can offer distinct insights into corporate tax avoidance activities. For example, Vietnam's largest non-financial corporate income tax payers, listed on the HCM Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) from 2017 to 2022, appear to engage in tax avoidance when assessed using the Accounting ETR and Current ETR. Conversely, the Cash ETR and

the Cash Flow ETR do not suggest tax avoidance during the study period. This discrepancy arises from the methodologies employed to calculate these metrics. Therefore, to gain a comprehensive understanding of companies' attitudes toward their tax obligations, it is crucial to employ multiple proxy variables to prevent drawing incorrect conclusions.

The extent of tax avoidance varies significantly across different industries. The Utilities sector demonstrates the highest level of tax avoidance, whereas the Industrial sector exhibits the least tax avoidance when assessed by the Accounting Economic Tax Rate (ETR). Given these findings, tax authorities should contemplate implementing appropriate management strategies and enhanced oversight to mitigate tax avoidance in targeted industries. Furthermore, there seems to be no notable difference in tax avoidance levels among companies across various regions.

Based on the findings of this study, further in-depth research will be conducted to identify the factors influencing companies' decisions regarding tax avoidance. The results of this study can help policymakers and tax authorities refine tax policies and implement effective management strategies to minimise tax avoidance.

REFERENCES

- Abdul Wahab, E. A., Ariff, A. M., Madah Marzuki, M., & Mohd Sanusi, Z. (2017). Political connections, corporate governance, and tax aggressiveness in Malaysia. *Asian Review of Accounting*, 25(3), 424-451.
- Angrist, J. D., & Pischke, J.-S. (2009). *Mostly harmless econometrics: An empiricist's companion*. Princeton University Press.
- Armstrong, C. S., Blouin, J. L., Jagolinzer, A. D., & Larcker, D. F. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, 60(1), 1–17.
- Blaylock, B., Shevlin, T., & Wilson, R. (2012). Tax avoidance, large positive temporary book–tax differences, and earnings persistence. *The Accounting Review*, 87(1), 91–120. <https://doi.org/10.2308/accr-10158>
- Blaylock, B., Shevlin, T., & Wilson, R. (2012). *Tax avoidance, large positive temporary book–tax differences, and earnings persistence*. *The Accounting Review*, 87(1), 91–120. <https://doi.org/10.2308/accr-10158>
- Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax-aggressive than non-family firms? *Journal of Financial Economics*, 95(1), 41–61.
- Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79(1), 145-179.
- Desai, M. A., & Dharmapala, D. (2009). Corporate tax avoidance and firm value. *The review of Economics and Statistics*, 91(3), 537-546.
- Dover, Ferrett, Gravino, Jones & Merler. (2015). *Bringing transparency, coordination, and convergence to corporate tax policies in the European Union: Part I: Assessment of the magnitude of aggressive corporate tax planning*. European Parliamentary Research Service.
- Dyreg, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *The Accounting Review*, 83(1), 61-82.
- Dyreg, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*, 85(4), 1163-1189.

- Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). *Tax reporting aggressiveness and its relation to aggressive financial reporting*. The Accounting Review, 84(2), 467–496. <https://doi.org/10.2308/accr.2009.84.2.467>
- General Department of Taxation (2017-2023). Official dispatch publicizing the list of 1,000 enterprises paying the largest corporate income tax in 2016-2022.
- Graham, J. R., & Tucker, A. L. (2006). Tax shelters and corporate debt policy. *Journal of Financial Economics*, 81(3), 563–594.
- Ha Kieu Oanh. (2021). *Corporate tax avoidance: Evidence from Vietnamese non-financial listed firms*: A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy at Lincoln University (Doctoral dissertation, Lincoln University).
- Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, 50(2-3), 127-178.
- Hines Jr, J. R., & Rice, E. M. (1994). Fiscal paradise: Foreign tax havens and American business. *The Quarterly Journal of Economics*, 109(1), 149–182.
- Hoseini, M., Gerayli, M.S. and Valiyan, H. (2019). Demographic characteristics of the board of directors' structure and tax avoidance: Evidence from Tehran Stock Exchange. *International Journal of Social Economics*, 46(2), 199–212.
- Hsieh, T. S., Wang, Z., & Demirkan, S. (2018). Overconfidence and tax avoidance: The role of CEO and CFO interaction. *Journal of Accounting and Public Policy*, 37(3), 241–253.
- IMF - International Monetary Fund (2019). *IMF Country Report No. 19/235*
- IMF (2021). International Monetary Fund. *IMF Country Report No. 21/42*
- IMF - International Monetary Fund (2023). *IMF Country Report No. 23/338*
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Kalbuana, N., Taqi, M., Uzliawati, L., & Ramdhani, D. (2023). CEO narcissism, corporate governance, financial distress, and company size on corporate tax avoidance. *Cogent Business & Management*, 10(1), 2167550.
- Lanis, R., & Richardson, G. (2011). The effect of board of director composition on corporate tax aggressiveness. *Journal of Accounting and Public Policy*, 30(1), 50–70.
- Lanis, R., & Richardson, G. (2012). Corporate social responsibility and tax aggressiveness: a test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 26(1), 75–100.
- Lee, R. J., & Kao, H. S. (2018). The impacts of IFRSs and auditors on tax avoidance. *Advances in Management and Applied Economics*, 8(6), 17-53.
- Lietz, G. M. (2013). *Tax avoidance vs. tax aggressiveness-A unifying conceptual framework*. Working Paper, University of Münster.
- Ministry of Finance (2018-2022). *Annual report 2018 - 2022*.
- Ministry of Finance. (2024). *Summary report on the implementation of the Law on Corporate Income Tax*.
- Minnick, K., & Noga, T. (2010). Do corporate governance characteristics influence tax management? *Journal of Corporate Finance* 16 (5), 703-718.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297.
- Nguyen Van Phung, Nguyen Thi Ngoc Lan. (2020). Nâng cao hiệu quả công tác quản lý rủi ro tuân thủ thuế ở các doanh nghiệp lớn. *Tạp chí Tài chính*, 742(1), 52-56.
- Organisation for Economic Co-operation and Development. (2015). *Measuring and monitoring BEPS, Action 11-2015 final report*. OECD Publishing. <https://doi.org/10.1787/9789264241343-en>

- Pham, M. T., Nguyen, L. V., & Nguyen, T. T. M. (2024). The Effect of Corporate Governance on Tax Avoidance: Evidence from Listed Firms in Vietnam. *Economic Insights-Trends & Challenges*, (2).
- Pham, M. T., Van Nguyen, L., & Nguyen, T. T. M. (2024). The Effect of Corporate Governance on Tax Avoidance: Evidence from Listed Firms in Vietnam. *Economic Insights-Trends & Challenges*, (2).
- Richardson, G., Taylor, G., & Lanis, R. (2015). The impact of financial distress on corporate tax avoidance spanning the global financial crisis: Evidence from Australia. *Economic Modelling*, 44, 44–53.
- Salihu, I. A., Obid, S. N. S., & Annuar, H. A. (2013). Measures of corporate tax avoidance: Empirical evidence from an emerging economy. *International Journal of Business and Society*, 14(3), 412–427.
- Scholes, M. S., & Wolfson, M. A. (1992). *Taxes and Business Strategy: A Planning Approach*. Englewood Cliffs, NJ: Prentice Hall.
- Slemrod, J. (2001). A general model of the behavioral response to taxation. *International Tax and Public Finance*, pp. 8, 119–128.
- Slemrod, J. (2004). The economics of corporate tax selfishness. *National Tax Journal*, 57(4), 877–899.
- Slemrod, J., & Yitzhaki, S. (2002). Tax avoidance, evasion, and administration. In *Handbook of Public Economics (Vol. 3)* (pp. 1423–1470). Elsevier.
- World Bank. (2023). *Government revenue, total (% of GDP)*. Retrieved from
- Zimmerman, J. L. (1983). Tax and firm size. *Journal of Accounting and Economics*, 5, 119–149.