

# Independent audit and non-economic factors affecting Vietnamese enterprises' enforced tax compliance behavior

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## ABSTRACT

**Purpose:** The study aims to examine non-economic factors such as independent audit, tax knowledge, tax awareness, tax morale, tax system complexity, and corporate brand in relation to enforced tax compliance of enterprises in Ho Chi Minh City, Vietnam.

**Design/ Methodology/ Approach:** The study used questionnaires collected from survey subjects who are accountants, chief accountants, or chief financial officers. There were 482 enterprises surveyed in Ho Chi Minh City, Vietnam.

**Findings:** The research results have shown that there is no difference in enforced tax compliance behavior between enterprises with financial statements audited by Big 4 auditing companies and those with Big 4-audited financial statements. In addition, tax knowledge, tax awareness, and company brand have a positive impact on enforced tax compliance behavior. Meanwhile, tax system complexity has the opposite effect, and tax morale has no impact on the enforced tax compliance behavior of enterprises in Ho Chi Minh City, Vietnam.

**Conclusion:** Based on this research, governments, tax authorities, and universities can come up with more suitable solutions to improve enterprises' enforced tax compliance behavior.

**Research Limitations:** This study only tested the impact of independent audit and non-economic factors such as tax knowledge, tax awareness, tax morale, tax system complexity, corporate brand on ETC. Future studies can examine additional economic factors such as tax rates, tax penalties, tax audits, tax compliance costs, and ETC.

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**Keywords:** Tax compliance, Enforced tax compliance, Tax compliance behavior, Independent audit, Non-economic factors, Vietnam.

## 1. INTRODUCTION

According to Vietnam's Tax Administration Law, tax policy is one of the important policies of any country because taxes are an important source of revenue and an important tool to regulate the country's economy.

Likely, the Vietnamese Government is always interested in the country's tax management, especially the tax obligations of enterprises. The Law on Tax Administration in Vietnam No. 78/2006/QH11, dated November 29, 2006 (Congress, 2006) which outlines the rights and obligations of taxpayers and the responsibilities and powers of the tax administration agency, mandates that the enterprise declares and pays its annual taxes to the tax authority. Additionally, the tax authority bears the responsibility of verifying and validating the enterprise's tax declaration and payment.

In accordance with the data from the General Department of Taxation, the total accumulated State budget revenue in the first 6 months of 2022 managed by the Tax agency is estimated at 775,262 billion VND, equal to 66% of the ordinance estimate. Ho Chi Minh City is the leading locality with total state budget revenue in Ho Chi Minh City in the first 6 months of 2022 estimated to reach more than 238,648 billion Dongs, equal to 61.74% of the yearly estimate and an increase of 17.49% over the same period in 2021. Despite occupying only 0.6% of the country's land area and housing a population of 9.2 million, Ho Chi Minh City significantly contributes to the

country's overall economic development. To maintain its role as the driving force of the southern key economic region and contribute a lot to the state budget, Ho Chi Minh City needs to have various measures to encourage and improve tax compliance of enterprises and people.

Paying taxes is citizens and enterprises' obligation. However, in reality, many enterprises consider this a burden and always find ways to avoid tax obligations. How to improve tax compliance of taxpayers is a question that is receiving attention from the Government, tax authorities, as well as the enterprise community and people.

The urgency of tax management issues has prompted numerous studies on tax compliance and tax evasion. In recent research based on the planned behavior theory (PBT), [Taing and Chang \(2021\)](#) studied people's tax compliance intentions in Cambodia. With survey data from 402 individual taxpayers and quantitative analysis, the results show that tax morale, tax fairness, and tax complexity have a statistically significant influence on compliance intention. In contrast, citizens' taxes, government power, trust in government, tax information, and tax awareness did not show a statistically significant relationship with tax compliance intention. [Augustine, Folajimi, and Ayodele \(2020\)](#) conducted a survey in Nigeria, aiming to analyze the impact of tax service quality on tax compliance in Nigeria. Honesty, ethics, payment rights, and accountability in particular measure the voluntary tax compliance factor of taxpayers. The study found that trust in tax authorities, tax service quality, and employment status are significant to tax compliance behavior. As a result, the study suggests that people need to raise tax awareness, education, and tax information. [Haning, Hamzah, and Tahili \(2020\)](#) applied the reasoned action theory to analyze the factors determining public trust and its influence on taxpayer compliance action. The findings continue to confirm that the tax morale factor has a positive impact on taxpayers' tax compliance behavior.

In Vietnam, the authors have also incorporated foreign research into their study, contextualizing the topic within the country's socio-economic framework. In order to assess the factors influencing the tax compliance behavior of enterprises, researchers conducted a primary data survey of 150 enterprises in Ben Tre province, Vietnam, using descriptive statistical methods, Cronbach's alpha coefficient, exploratory factor analysis, and regression. The results indicate that six factors significantly influence the behavioral aspect of complying with tax laws. Social factors have the strongest impact; psychological factors have the second strongest impact, followed by other factors such as enterprise characteristics, business industry, tax system structure, and economic factors.

[Nguyen, Nguyen, Le, Le, and Truong \(2020\)](#) identified factors affecting non-compliance with enterprise income tax among enterprises in Ho Chi Minh city, Vietnam. The research results shed light on the current business and tax management environment in Vietnam, identifying seven factors that impact non-compliance with corporate income tax. These factors include the ratio of working capital assets to total assets, the ratio of revenue to total assets, the loss from the previous year, the ratio of total debt to total assets, the ratio of accounts receivable to sales, the scale of the enterprise, the fines for administrative tax violations, the amount of tax payable in the period, and the business sector.

While previous studies have yielded valuable results by exploring and analyzing various factors affecting taxpayers' tax compliance, there has been a lack of studies that focus on non-economic and economic factors, particularly those related to independent audits, which can influence enforced tax compliance behavior.

The research objective is to analyze the impact of an independent audit of non-economic factors (including tax knowledge, tax awareness, tax morale, complexity of the tax system, and corporate branding) on mandatory tax compliance. Based on the analysis results, the authors propose some implications for relevant objects to enhance the mandatory compliance of enterprises.

To achieve the above research goals, the thesis answers the following questions. The first question is whether an independent audit affects the compliance with enterprises' mandatory tax obligations in Ho Chi Minh City. The second question is: what non-economic factors (tax awareness, tax morale, tax knowledge, corporate brand, tax system complexity) influence enterprises' mandatory tax compliance in Ho Chi Minh City, and what is the level of impact? Finally, what suggestions should we make to enhance the level of tax compliance among enterprises in Ho Chi Minh City?

In order to address the aforementioned inquiries, the study employed quantitative research methods. In order to propose a research model on independent auditing and non-economic factors affecting enterprises' mandatory tax compliance in Ho Chi Minh City, the author will draw upon basic theories and an overview of previous studies to develop corresponding research hypotheses. Then, to test the hypotheses, the author collected survey data from 482 enterprises in Ho Chi Minh City in 2022 and processed the data using SPSS 26 and AMOS 24 software.

The topic is structured as follows: The introduction provides clarity on the topic's necessity, research objectives, research questions, the object and scope of the research, the significance of the research, and the structure of the thesis. In the next chapter, the authors will present an overview of previous studies and research gaps. Subsequently, the authors introduce concepts, models, and research hypotheses, which they construct and debate based on fundamental theories within the topic's research domain. The next section will present the research method, sample selection, data collection, and analysis. Then, the authors present the research results and discuss them. Finally, the authors conclude and present the topic's theoretical and practical significance, as well as its limitations, as a basis for further research.

## **2. LITERATURE REVIEW**

### *2.1. Some Important Related Concepts*

#### *2.1.1. Tax Compliance*

Tax compliance is the willingness of taxpayers to comply with relevant tax regulations in order to pay tax when it is due. [Kirchler \(2007\)](#) defines tax compliance as the willingness of a taxpayer to offset tax liabilities according to tax laws, rules, and regulations at the due time. Complying with tax laws and regulations means reporting taxable income accurately, ensuring timely tax returns, properly calculating tax liabilities, and making quick submissions to the relevant tax authorities. Later, [\(Lewis, Carrera, Cullis, & Jones, 2009\)](#) defined tax compliance as the submission and declaration of all information related to a taxpayer's tax obligations, all of which must be performed by the taxpayer himself or herself with responsibility. The taxpayer pays all taxes in full and on time.

[McBarnet \(2003\)](#) identified three types of compliance, including: committed compliance, surrendered (involuntary) compliance, and creative compliance. Committed compliance refers to the willingness to comply with a tax obligation without the taxpayer complaining. When there is reluctance to comply, it means surrendering compliance. Meanwhile, others still seek to reduce the amount of tax payable, but within the legal framework. This is called creative compliance.

Researchers continue to debate the concept of tax compliance, specifically whether taxpayers voluntarily comply with their tax obligations. The exact meaning of tax compliance varies depending on the researcher's point of view and approach.

#### *2.1.2. Voluntary Tax Compliance and Enforced Tax Compliance*

[Kirchler \(2007\)](#) stated that tax compliance can take two forms: voluntary tax compliance and enforced tax compliance.

[Baer and Silvani \(1997\)](#) suggested that "voluntary tax compliance is defined as timely submission and reporting of necessary tax information, self-assessment of taxes owed, and timely payment of such taxes without the need for coercive action". Another definition states that voluntary tax compliance is the act of an individual who correctly declares all income for tax purposes and pays tax liabilities by the due date specified by the competent authority or the current tax law [\(Palil & Mustapha, 2011\)](#).

Trust is the key to achieving voluntary compliance, while authority is necessary for mandatory compliance. Governments use inspection and fines as a solution to improve taxpayer compliance [\(Kirchler, 2007\)](#).

#### *2.1.3. Tax Non-Compliance*

In practice, taxpayers do not fully support the argument that they must strictly and voluntarily comply with taxes. This is due to the fact that paying taxes typically imposes costs on taxpayers. Therefore, it is possible that people do not enjoy paying taxes, do not voluntarily pay taxes, or do not comply with tax regulations.

According to [Alabede, Zainal Affrin, and Md Idris \(2011\)](#) tax non-compliance appears in many different forms. It can be intentional non-compliance, which means that the taxpayer reduces the impact of regulations in order to enjoy the tax benefits payable. The second form is unintentional non-compliance, which can be the result of ignorance, lack of oversight, or mistakes in the application of tax laws. Furthermore, any non-compliance by taxpayers that results in not declaring taxable income correctly leading to non-payment or non-payment of tax in accordance with regulations is considered tax evasion.

From the concepts and previous perspectives of the researchers, it is evident that non-compliance with tax for enterprises refers to the inability of taxpayers to fulfill their obligations, which can manifest in various forms such as not registering for tax, not filing tax returns, or not making timely tax payments.

#### *2.1.4. Economic and Non-Economic Factors of Tax Compliance*

There have been many studies conducted to find and test the factors affecting tax compliance in general and voluntary tax compliance in particular. In contrast, sanctions-oriented policies like tax audits and penalties often explain past tax compliance behavior (Alm, McClelland, & Schulze, 1992). This approach theoretically cannot fully explain tax compliance behaviors. There have been many studies to explain tax compliance behavior based on tax compliance determinants, both economic and non-economic factors.

In the tradition of tax compliance research, most of the factors considered important to explain tax compliance are economic factors, including the level of actual income, tax rate, tax benefits, tax audit, audit probabilities, fines, and penalties (Barbuta-Misu, 2011). There are many non-economic factors affecting tax compliance. Researchers have conducted numerous studies to incorporate these non-economic factors into the framework of economic analysis to explain tax compliance behavior (Alm, Sanchez, & De Juan, 1995).

### *2.2. Theoretical Framework*

#### *2.2.1. Theory of Planned Behavior*

Planned Behavior theory was proposed by Ajzen (1985) as an extension of Reasoned Action theory proposed a decade earlier by Ajzen and Fishbein (1975). According to this theory, people are more likely to perform a behavior if they rate the suggested behavior as having a positive outcome (attitude). The Planned Behavior theory helps with classifying the different determinants of tax compliance, which is conceptualized as a function of three large factors: attitudes, subjective norms, and subjective controls.

When applying this theory to the authors' research, the authors expect that Tax awareness, Tax morale, Tax system complexity will have a direct impact on corporate tax compliance behavior.

#### *2.2.2. Utility Theory*

The mathematical model of expected utility was explained and developed by Bernoulli (1954) to become the St. Petersburg deal with probability and decision-making (under risk) theory in economics. Bernoulli (1954) proposed that the utility resulting from a slight increase in wealth is inversely proportional to the quantity of the good previously owned. This means that by reducing marginal utility, people will prioritize moral expectations (or wealth utility) over expected monetary value.

Therefore, researchers have established a theory of risky (or uncertain) decisions, known as the expected utility (EU) theory. The EU theory defines how people make decisions or choose alternatives in complex situations based on their basic needs, choices, or preferences in relation to risks and the intrinsic value of each attribute, such as belief, morality, reputation, or other inherent quality of an individual, enterprise, organization, or entity under consideration. When applying this theory to the authors' research, they expect that enterprises with reputable brands will be more likely to comply with taxes in order to maintain their reputation.

#### *2.2.3. Psychosocial Theory*

Schmölders (1959) was a pioneer in discussing the relationship between public tax psychology and governmental services. Therefore, we must consider non-economic factors when elucidating the determinants of tax compliance (Torgler, 2002).

Scholars studying tax compliance from sociology and psychology indicate that this phenomenon is a social problem (King & Sheffrin, 2002). Psychologists and sociologists conclude that taxpayers' behavior will become irrational when influenced by identifying themselves as belonging to group-generating interactions like peer influence, social norms, imitation, and group behavior (Ritsatos, 2014).

Taxpayers with a positive attitude towards tax obligations and the behavior of tax officials are willing to pay taxes. Song and Yarbrough (1978) studying the influence of ethical values on taxpayer compliance, indicated that both fairness and morale are compliance, behavior determinants.

When applying this theory to the authors' research, we expect that the higher the taxpayer's attitudes and views on tax, the higher the tax compliance ability of enterprises.

#### 2.2.4. Rational Action Theory (RAT)

The rational action theory (Ajzen & Fishbein, 1975; Sadress, Bananuka, Orobia, & Opiso, 2019) posits that individuals make rational decisions. This implies that every action must be motivated by the intention to perform the act. The RAT model considers two important factors that contribute to behavioral intentions: attitudes toward behaviors and subjective norms. Ajzen and Fishbein (1980) claim that gaining a deeper understanding of the factors influencing behavior requires studying the beliefs that individuals hold about themselves and their environment. Attitude is also defined as a positive or negative opinion about an "attitude object." In terms of taxes, taxpayers' attitude is either a positive or a negative view towards tax compliance behavior. A positive view leads to tax compliance, while a negative view results in tax non-compliance (Nkwe, 2013). In general, taxpayers with a positive attitude towards the tax system will improve tax compliance.

When applying this theory to their research, the authors expect that if enterprises have the right attitude about tax obligations, they will increase their ability to comply with tax.

### 2.3. Factors Affecting Enforced Tax Compliance

#### 2.3.1. Independent Audit

Tax compliance is influenced by the type of auditor. Big4 companies possess the experience and staff to support tax compliance. Many countries around the world, including Vietnam, have recognized Big4's service quality and efficiency. Nor, Ahmad, and Mohd Saleh (2010) concluded that enterprises in Malaysia using Big4 services have better tax compliance than other enterprises. A possible explanation for this relationship is that audit fees are collected for non-audit services, and tax services are one of the non-audit services. Other enterprises offer similar services, but on a much smaller scale. This is consistent with the view of Md-Yassin et al. (2010) who argue that enterprises with high liquidity should use the services of highly reputable tax service providers to be able to fulfill their tax obligations effectively.

Therefore, the following hypothesis is formulated:

*H<sub>1</sub>: There is a difference in enforced tax compliance behavior between companies whose financial statements are audited by Big4 audit firms, non-Big4 audit firms, and non-audited companies.*

#### 2.3.2. Tax Awareness

Tax compliance is an individual's behavior, so according to The Theory of Rational Behavior (Ajzen, 1991) and The Theory of Planned Behavior (Ajzen & Fishbein, 1975) behavior will be heavily influenced by other factors such as personal characteristics such as qualifications, awareness, personality, income, etc. Therefore, factors such as tax knowledge, understanding of tax obligations, computer skills for calculating income and making tax declarations, and the ability to read and understand processes and procedures for tax declaration and payment significantly influence tax compliance. Additionally, individual subjective standards, including intentions, subjective feelings, and the intention to comply or not, significantly influence behavior. Numerous previous studies (Devos, 2014; Inasius, Darijanto, Gani, & Soepriyanto, 2020; Saad, Wahab, & Samsudin, 2016) have also confirmed this factor.

Therefore, the following hypothesis is formulated:

*H<sub>2</sub>: Tax awareness has a positive impact on enforced tax compliance.*

#### 2.3.3. Tax Morale

The psychosocial model approach examines the human factors that influence tax compliance behavior. Taxpayers have a higher mental intention to engage in compliant behavior. In fact, taxpayers voluntarily pay taxes even under conditions of low tax enforcement because of their intrinsic motivation, stemming from an understanding that paying taxes is an obligation (Cummings, Martinez-Vazquez, McKee, & Torgler, 2009). Additionally, Richardson (2006) reports a 45-country study of tax evasion, showing that tax morale influences tax compliance behavior. Devos (2014) applied certain methods to conduct some research on tax compliance behavior in Australia, showing that tax morale has a significant influence on tax compliance behavior.

Consequently, the hypothesis is formulated as follows:

H<sub>3</sub>: Tax morale has a positive impact on enforced tax compliance.

#### 2.3.4. Tax Knowledge

Laws are often confusing due to some jargon and terminology, as is the case with taxes (McCaffery & Baron, 2004) leading to a tendency for taxpayers to misunderstand tax laws and policy books if they lack in-depth knowledge of tax. Corchón (1992) asserts that inaccuracies in information, rather than a lack of information, are the cause of tax non-compliance. Obid (2004) shows a positive correlation between taxpayers' behavioral tax compliance and tax non-compliance when they lack tax knowledge. In contrast, if taxpayers have in-depth tax knowledge, they are more able to participate in tax avoidance than in non-compliance (Obid, 2004).

Numerous previous studies have examined the impact of tax knowledge. Fallan (1999) found that tax knowledge has a significant and positive impact on tax compliance. Consequently, the hypothesis is formulated as follows:

H<sub>4</sub>: Tax knowledge has a positive effect on enforced tax compliance.

#### 2.3.5. Company Brand

Many recent tax compliance studies incorporate economic, psychological, and social factors. Molero and Pujol (2012) investigated tax evasion by analyzing taxpayers' psychological costs. Molero and Pujol (2012) expanded the Allingham and Sandmo (1972) model by incorporating non-economic factors such as "reputation," which illustrates the connection between tax awareness and tax compliance. They conclude that ethical taxpayers and reputable businesses have no intention of evading taxes, even if they can derive a clear economic benefit from doing so. Andreoni, Erard, and Feinstein (1998) indicated that the fear of social stigma and the decline of personal or brand reputation make taxpayers comply with tax systems.

Consequently, the hypothesis is formulated as follows:

H<sub>5</sub>: Company brand has a positive impact on enforced tax compliance.

#### 2.3.6. Tax System Complexity

A complex tax system can prevent a taxpayer from complying with tax obligations by creating barriers and higher compliance costs, reducing the taxpayer's compliance preference. Chau and Leung (2009) when studying the Fischer tax compliance model, asserted that the tax system should be simple, represented by simple and clear procedures and tax laws. Besides, Richardson (2006) investigating tax evasion in 45 countries, taking into account both economic and non-economic factors, claimed that complexity is the most important determinant to impact tax compliance behavior.

Consequently, the hypothesis is proposed as follows:

H<sub>6</sub>: Tax system complexity has a negative effect on enforced tax compliance.

### 3. RESEARCH MODEL

The authors propose a research framework in Figure 1.

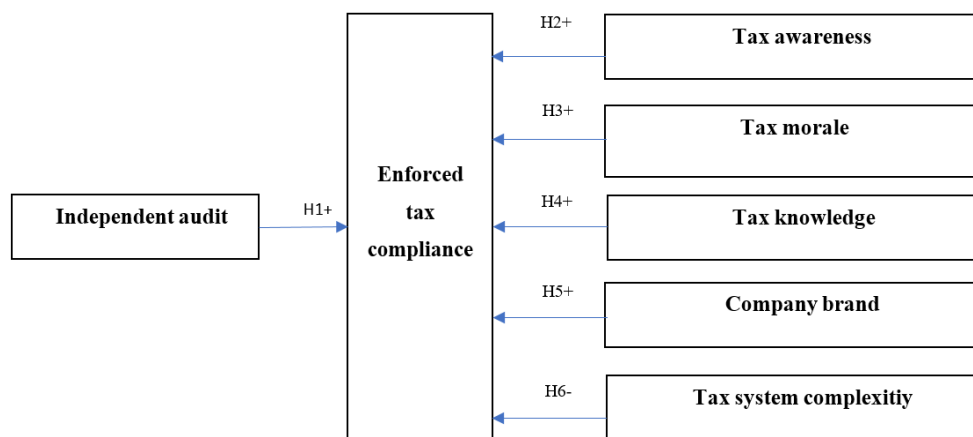


Figure 1. Proposed research model.

This is based on a theoretical framework and a review of related literature. This study aims to analyze the impact of six factors, including independent audit, tax knowledge, tax awareness, tax morale, tax system complexity, and corporate brand for enforced tax compliance. Therefore, enforced tax compliance will act as the dependent variable, and six other factors will be the independent variables.

#### 4. METHODOLOGY

In this study, the questionnaires were applied to collect research data. The questionnaire contains 2 parts with 44 questions. The first part (10 questions) includes an introduction to the business and the respondents. The second part (34 questions) consists of content related to independent audits and non-economic factors affecting enforced tax compliance. Respondents include accountants, chief accountants, or chief financial officers of businesses in Ho Chi Minh City, Vietnam. There are 482 enterprises surveyed.

In this study, the authors used a quantitative research approach. The authors have taken into account and incorporated findings from previous studies on the factors that influence independent audits and non-economic factors that impact the enforced tax compliance of enterprises, which has led them to develop and test their own research model. Variables measured by categories are adjusted from several studies, such as [Rodrigues \(2019\)](#); [Kirchler and Wahl \(2010\)](#); [Nguyen, Pham, Le, Truong, and Tran \(2020\)](#); [Taing and Chang \(2021\)](#) and [Girma \(2017\)](#). The items are measured using a 5-point Likert scale, where (1) Strongly disagree; (2) Disagree; (3) No opinion; (4) Agree; (5) Strongly agree.

The model analysis process contains the following stages: (1) Cronbach's test on the reliability of the scale; (2) exploratory factor analysis (EFA); (3) confirmatory factor analysis (CFA); (4) Structural Equation Modeling (SEM) and (5) Analysis of Variance (ANOVA).

#### 5. RESULTS AND DISCUSSION

##### 5.1. Sample Descriptive

Given the total of 34 observed variables in this study, a minimum sample size of 204 is required. The study obtained 482 valid answers from the survey subjects, greater than 300 should be appropriate.

[Table 1](#) indicates some characteristics, numbers, and percentages of surveyed businesses (Legal form of enterprises, Main business sector, Business age, Business size, financial statement audit, and some Characteristics of enterprise representatives participating in the survey like Age, Gender, Highest education level, Respondent designation, Working time in the field of financial and accounting.

**Table 1.** Respondents profile.

No	Item	Frequency (N=482)	Rate (Total 100%)
1	Legal form of business		
	State business	20	4.1
	Sole proprietorship	38	7.9
	Limited company	304	63.1
	Share company	119	24.7
	Partnership	1	0.2
2	Main business sector		
	Manufacturing	99	20.5
	Trading	150	31.1
	Services	185	38.4
	Others	48	10
3	Business age		
	Under 2 years	30	6.2
	2 – under 5 years	113	23.5
	Over 5 years	339	70.3
4	Business size (Total asset)		
	Under 20 billion	277	57.5

No	Item	Frequency (N=482)	Rate (Total 100%)
	20 - under 50 billion	65	13.5
	50 - under 100 billion	31	6.4
	Over 100 billion won	109	22.6
5	Financial statement audit		
	Big 4 (KPMG, Deloitte, EY, PwC)*	62	12.9
	Non - Big 4	40	29
	Non - Audited financial statements	280	58.1
6	Age		
	Under 22 years	8	1.6
	22 – under 30 years	235	48.8
	30 – under 45 years	200	41.5
	More than 45 years	39	8.1
7	Gender		
	Male	133	27.6
	Female	349	72.4
8	Highest education level		
	Junior college	80	16.6
	Bachelor degree	319	66.2
	Masters	73	15.2
	PhD	6	1.2
	Others	4	0.8
9	Respondent designation		
	Accountant	316	65.6
	Chief accountant	127	26.3
	CFO	39	8.1
10	Working time in the field of financial and accounting		
	Under 5 years	225	46.6
	5 - under 10 years	130	27
	10 - under 20 years	103	21.4
	More than 20 years	24	5

**Note:** \* KPMG, Deloitte, EY, PwC: Names of four international audit firms.

## 5.2. Assessment

This research contains 1 dependent variable and 5 independent variables, for a total of 34 observed variables. The scales are inherited from previous research such as: [Rodrigues \(2019\)](#); [Kirchler and Wahl \(2010\)](#); [Nguyen et al. \(2020\)](#); [Taing and Chang \(2021\)](#) and [Girma \(2017\)](#). The test results indicate that the scales meet the reliability requirements. [Table 2](#) illustrates the minimum value, maximum value, mean value, and standard deviation of 34 observed variables and the reliability results of the variable scales.

**Table 2.** Test results of the validity and reliability of scale.

No	Symbol	Min.	Max.	Mean	Std. dev	Alpha
A	Dependent variable					
1	ETC - Enforced tax compliance					
	ETC1	1	5	3.56	0.777	0.88
	ETC2	1	5	3.52	0.785	
	ETC3	1	5	3.33	0.901	
	ETC4	1	5	3.47	0.816	
	ETC5	1	5	3.52	0.811	
	ETC6	1	5	3.64	0.731	



No	Symbol	Min.	Max.	Mean	Std. dev	Alpha
	ETC7	1	5	3.29	0.901	
	ETC8	1	5	3.44	0.841	
B	Independent variable					
1	TA - Tax awareness					
	TA1	1	5	3.93	0.720	0.856
	TA2	1	5	4.00	0.682	
	TA3	1	5	4.05	0.687	
	TA4	1	5	3.79	0.736	
	TA5	1	5	3.92	0.738	
2	TM - Tax morale					
	TM1	1	5	4.00	0.721	0.898
	TM2	1	5	3.90	0.861	
	TM3	1	5	3.92	0.811	
	TM4	1	5	4.04	0.681	
	TM5	1	5	4.04	0.714	
	TM6	1	5	4.02	0.757	
3	TK - Tax knowledge					
	TK1	1	5	3.48	0.868	0.792
	TK2	1	5	3.54	0.923	
	TK3	1	5	3.66	0.831	
	TK4	1	5	3.74	0.822	
	TK5	1	5	3.98	0.716	
4	CB - Company brand					
	CB1	1	5	3.88	0.728	0.914
	CB2	1	5	3.87	0.706	
	CB3	1	5	3.99	0.653	
	CB4	1	5	4.04	0.683	
	CB5	1	5	4.04	0.680	
5	TSC - Tax system complexity					
	TSC1	1	5	3.24	0.871	0.879
	TSC2	1	5	3.27	0.906	
	TSC3	1	5	3.32	0.916	
	TSC4	1	5	3.22	0.981	
	TSC5	1	5	3.54	0.907	

The research results indicate that the KMO coefficient is 0.918, with a Sig coefficient of 0.000. The factor loading coefficients are all greater than 0.5, the eigenvalues stop at factor 6 are 1.401 greater than 1, and the total variance quoted is 64.733% greater than 50%. Therefore, the results of exploratory factor analysis are appropriate.

**Table 3.** The rotated factor matrix of exploratory factor analysis.

Items	Factor					
	1	2	3	4	5	6
ETC4	0.799					
ETC2	0.782					
ETC5	0.735					
ETC7	0.682					
ETC6	0.677					
ETC8	0.659					
ETC3	0.629					

ETC1	0.574					
CB4		0.925				
CB5		0.850				
CB3		0.845				
CB2		0.780				
CB1		0.692				
TA3			0.835			
TA1			0.821			
TA2			0.805			
TA4			0.603			
TA5			0.595			
TM3				0.890		
TM4				0.777		
TM6				0.774		
TM5				0.691		
TM1				0.674		
TSC3					0.838	
TSC4					0.796	
TSC2					0.736	
TSC1					0.727	
TSC5					0.724	
TK2						0.787
TK1						0.634
TK3						0.588
TK4						0.520

Following the exploratory factor analysis, the confirmatory factor analysis will further include 6 concepts with 34 observed variables (Table 3).

We'll use the following criteria to assess the scale's reliability: General reliability, extracted variance. The results show that the overall reliability is satisfactory (greater than 0.5). The scales' extracted variances are all satisfactory (greater than 0.5), except that the average scale has an extracted variance of 0.480 and the TK scale has an extracted variance of 0.483, which is less than 0.5, but the difference is not significant, so it should be considered meeting the requirements. Therefore, we can conclude that the scales demonstrate reliability. Table 4 displays this result.

Table 4. The convergent, discriminate, and nomological validity of items.

	Enforced tax compliance (ETC)	Company brand (CB)	Tax awareness (TA)	Tax morale (TM)	Tax System complexity (TSC)	Tax knowledge (TK)
Extracted variance	0.480	0.660	0.545	0.654	0.595	0.483
Reliability synthesis	0.880	0.906	0.854	0.904	0.880	0.788

### 5.3. Assessment of Structural Model

The SEM structural model testing results show that the model has df = 445 degrees of freedom, Chi-Square = 1132,290, CFI = 0.923, GFI = 0.868, and TLI = 0.914, all of which are greater than 0.9 (very good); the index RMSEA = 0.057 is less than 0.08, the CMIN/df = 2,544 is less than 3 (good), and the P value is 0.000. This indicates that the theoretical model is consistent with the research data. The estimated coefficients (beta coefficients) in the SEM structural model are all positive, illustrating the positive relationship between the variables. All these relationships are statistically significant at 5%.

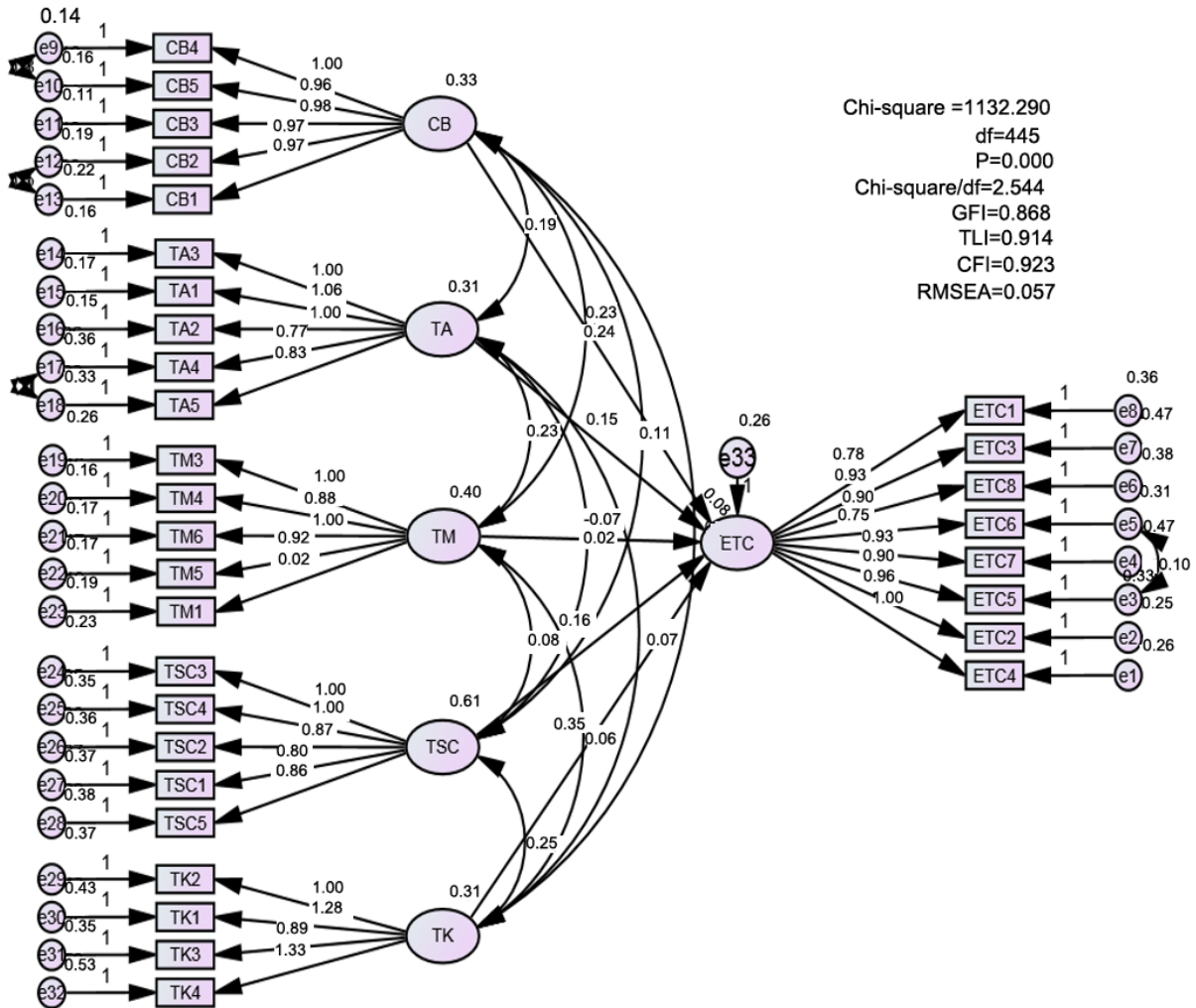


Figure 2. Results of structural equation modeling (SEM).

Table 5. Result of hypotheses testing.

Variable	Estimate	Estimate (Standardized)	SE	CR	P	Result
ETC <--- CB	0.235	0.213	0.077	3.044	0.002	Supported
ETC <--- TA	0.154	0.136	0.079	1.948	0.051	Supported
ETC <--- TM	-0.067	-0.066	0.072	-0.927	0.354	Not supported
ETC <--- TSC	0.157	0.193	0.050	3.109	0.002	Not supported
ETC <--- TK	0.352	0.312	0.076	4.624	0.000	Supported

The results table in Table 5 reveals the following:

- Tax knowledge (TK) has a positive impact on enforced tax compliance (ETC) with a regression coefficient of 0.352 with a significance level of 0.000 (statistical significance level 5%).
- Tax system complexity (TSC) has a positive impact on enforced tax compliance (ETC) with a regression coefficient of 0.157 significance level 0.002 (statistical significance level 5%).
- Company brand (CB) has a positive impact on enforced tax compliance (ETC) with a regression coefficient of 0.235 and a significance level of 0.002 (statistical significance level 5%).

- Tax awareness (TA) has a positive effect on enforced tax compliance (ETC), with a regression coefficient of 0.154 with a significance level of 0.051 (statistical significance level 10%).
- Tax morale (TM) has no impact on enforced tax compliance (ETC), because it has a significance level of 0.354.

#### 5.4. ANOVA Analysis

To examine whether there is a difference in enforced tax compliance among enterprises according to the characteristics of the sample, the authors conduct an analysis of variance (ANOVA). In this section, the authors will analyze the difference between enterprises with unaudited financial statements, financial statements audited by Big 4 auditing firms, and financial statements audited by non-Big 4 auditing firms.

**Table 6.** Test of homogeneity of variances.

		Levene statistic	Df1	Df2	Sig.
TB	Based on mean	2.187	2	479	0.113
	Based on median	2.121	2	479	0.121
	Based on median and with adjusted df	2.121	2	424.196	0.121
	Based on trimmed mean	2.178	2	479	0.114

**Table 7.** Results of ANOVA.

	Sum of squares	DF	Mean square	F	Sig.
Between groups	1,944	2	0.972	2.653	0.071
Within groups	175.497	479	0.366		
Total	177.441	481			

According to the results compiled in [Table 6](#) and [7](#), there is a difference in required tax compliance between the company with unaudited financial statements, audited financial statements by Big 4 auditing firms, and financial statements audited by non-Big 4 audit firms because of Sig. = 0.071 (statistical significance level 10%).

Based on the above analysis results, the authors summarize the results of hypotheses testing as follows:

[Table 8](#) presents: (1) research hypotheses; (2) theories explaining each hypothesis; and (3) direction of impact in each hypothesis (predictions and research results).

**Table 8.** Summary of hypotheses testing.

STT	Hypothesis	Theory	Expected	Result
H1	There is a difference in enforced tax compliance between the company whose financial statements are audited by Big4 audit firm and the non-Big4 audit company and not audited	Utility theory	Difference	Difference
H2	Tax awareness has a positive impact on enforced tax compliance	Theory of planned behavior	+	+
H3	Tax morale has a positive impact on mandatory tax compliance. Tax has a positive effect on enforced tax compliance	Theory of planned behavior	+	0
H4	Tax knowledge has a positive impact on enforced tax compliance	Theory of social psychology	+	+
H5	Company brand has a positive impact on enforced tax compliance	Utility theory	+	+
H6	The tax system complexity has a negative effect on enforced tax compliance	Theory of planned behavior	-	+

**Note:** Symbol: (+): The same effect; (-): The opposite effect; (0): No impact.

## 6. CONCLUSIONS

This research objective is to examine non-economic factors affecting enforced tax compliance of enterprises in Ho Chi Minh City, Vietnam. Research results show that Tax knowledge (TK), Company brand (CB), complexity of the tax

system (TC), and tax awareness (TA) have a direct impact on enforced tax compliance (ETC). Besides, the research results also show that the Tax Morale (TM) factor has no impact on enforced tax compliance (ETC).

In addition, the test results show that there is a difference in ETC between enterprises whose financial statements are audited by a Big 4 auditing firm and financial statements audited by a non-Big4 auditing firm.

This study has great theoretical significance, supplementing the theoretical model of factors affecting ETC research in Vietnam. In addition to the contributions presented above, research results are also quite useful documents for a number of other fields such as education and training. Specifically, it can serve as a reference document for lecturers and students in university economics majors, particularly in areas such as taxation, accounting, and public finance. Additionally, these research results have significant implications for the field of science and technology, as they have introduced a theoretical model that serves as a valuable reference for researchers in related fields.

This study is one of the very few to use the SEM model when analyzing factors affecting ETC research in Vietnam. Most previous studies used linear regression analysis, such as [Nam and Minh \(2021\)](#) and [Nguyen et al. \(2020\)](#) and so on.

The research results show that tax complexity has a positive impact on ETC, which is contrary to initial expectations and different from the results of most previous studies such as [Taing and Chang \(2021\)](#); [Chau and Leung \(2009\)](#) and [Richardson \(2006\)](#) the like. This also shows another aspect of the relationship between the tax complexity factor and ETC.

The more complete the taxpayer's knowledge and awareness, the higher their ability to perform ETC. To increase enterprises' awareness of tax compliance, mass media programs need promotion. Additionally, educational programs at all levels should incorporate tax law education in appropriate forms. Especially for finance and accounting training majors, it is necessary to design programs to help learners practice declaring, calculating, and paying taxes while continuously updating relevant new regulations and policies.

The state needs to guide people's awareness of the tax obligations they must fulfill. The state needs to spread the word about the importance of taxes to the state budget and government expenditures serving the community's common interests (social security, national defense and security, etc.). Furthermore, the process of orienting each individual's awareness is a long-term one. Therefore, it is necessary to start immediately with young people, specifically pupils and students, by introducing tax education content at the elementary school level. This will equip them with basic knowledge about taxes and their obligations to the state, foster a sense of responsibility, and help them understand the significance of taxes for social welfare, which is achieved through the implementation of government budget expenditures for the benefit of the people.

Corporates must regularly improve and update tax regulations for their leaders and employees. To optimize taxes, corporations need to improve their understanding of the law. Firstly, corporations must understand the law, especially tax law, to appropriately and profitably apply current legal provisions and control tax costs within the framework of the law. Companies need to increase staff training. In addition to the above factors, to successfully and effectively implement a tax strategy, corporations focus on developing a team of qualified and competent employees and enhancing the science and technology application to create efficiency in the administration and operation of tax compliance control processes.

Corporate reputation positively impacts tax compliance. As a result, there should be measures to encourage corporations to comply with tax policies and laws, such as praising and rewarding corporations for performing their tax obligations efficiently. Furthermore, the mass media should publicize a list of corporations with high tax risks and obligations. This encourages other enterprises to be more proactive in tax compliance.

In Vietnam, the audit unit factor influences a corporate's Earned Tax Credit (ETC). In Vietnam, there are differences in voluntary tax compliance among enterprises audited by Big 4 companies (KPMG, Deloitte, EY, PwC), audited by non-Big 4 companies, and not audited.

This study only tested the impact of independent audit and non-economic factors such as tax knowledge, tax awareness, tax morale, tax system complexity, corporate brand on ETC. Future studies can examine additional economic factors such as tax rates, tax penalties, tax audits, tax compliance costs, and ETC.

## FUNDING

This research is supported by University of Economics Ho Chi Minh City (Grant number: 2023-02-26-1418).

## INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the University of Economics Ho Chi Minh City, Vietnam has granted approval for this study (Ref. No. 1).

## TRANSPARENCY

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

## COMPETING INTERESTS

The authors declare that they have no competing interests.

## AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

## ARTICLE HISTORY

Received: 18 April 2024/ Revised: 28 August 2024/ Accepted: 10 September 2024/ Published: 24 September 2024

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