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Tax Compliance among Generation Z: The Role of Tax Awareness, Rate Knowledge, and Taxpayer Perceptions

Kepatuhan Pajak pada Generasi Z: Peran Kesadaran Pajak, Pengetahuan Tarif, dan Persepsi Wajib Pajak

Hamilah[1], Grace Faycha Yasin[2], Nuri Afrinawati[3], Yosandi Yulius[4], Yudi Julius[5]
[1,2] (Sekolah Tinggi Ilmu Ekonomi Y.A.I, Jakarta, Indonesia)
[3] (Albukhary International University, Kedah, Malaysia)
[4,5] (Universitas Persada Indonesia Y.A.I, Jakarta, Indonesia)
hamilah.tiyan@gmail.com
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Abstract - Based on the empirical findings, taxpayer awareness, tax rate knowledge, and taxpayer perception have positive and significant effects on tax compliance among generation Z individual taxpayers in Jakarta, both individually and collectively. The findings indicate that tax rate knowledge is the most dominant factor in shaping generation Z tax compliance, demonstrating that compliance is influenced not only by awareness of the importance of taxation and positive perceptions of the tax system, but also by taxpayers' ability to understand and apply tax regulations in practice. Theoretically, these findings reinforce the theory of planned behavior, particularly the role of perceived behavioral control, by demonstrating the importance of cognitive capability in translating the intention to comply into actual compliance behavior. The findings also support the slippery slope framework by highlighting the importance of positive perceptions of the tax system and tax authorities. Practically, tax authorities and educational institutions should develop more practical, accessible, and digitally oriented tax education, particularly regarding tax rates, taxable income, tax calculation, payment, and reporting, while also improving the quality, transparency, and accessibility of tax services. This study is theoretically and practically limited by its focus on generation Z individual taxpayers in Jakarta and its inclusion of only three explanatory variables, which limits the comprehensiveness and generalizability of the proposed model. Future research should expand the population and geographical coverage and incorporate additional factors such as tax digitalization, trust in tax authorities, tax sanctions, service quality, financial literacy, tax morale, subjective norms, and tax culture.

Keywords: Generation Z, Taxpayer Awareness, Tax Compliance, Taxpayer Perception, Tax Rate Knowledge.

Abstrak *- Penelitian ini bertujuan untuk menganalisis pengaruh kesadaran wajib pajak, pengetahuan tarif pajak, dan persepsi wajib pajak terhadap kepatuhan wajib pajak orang pribadi generasi Z di Jakarta. Populasi penelitian adalah wajib pajak orang pribadi generasi Z yang berdomisili dan/atau bekerja di Jakarta, berusia 18-26 tahun, memiliki penghasilan, dan memiliki NPWP. Penelitian menggunakan pendekatan kuantitatif asosiatif kausal dengan 80 responden yang dipilih melalui* accidental sampling*. Data dikumpulkan melalui kuesioner daring menggunakan skala likert lima poin dan dianalisis menggunakan* structural equation modeling-partial least squares *(SEM-PLS) dengan bantuan smart-PLS 4. Hasil penelitian menunjukkan bahwa kesadaran wajib pajak, pengetahuan tarif pajak, dan persepsi wajib pajak berpengaruh positif dan signifikan terhadap kepatuhan wajib pajak, baik secara parsial maupun simultan. Pengetahuan tarif pajak merupakan faktor yang paling dominan dalam meningkatkan kepatuhan wajib pajak generasi Z. Novelty penelitian terletak pada pengintegrasian dimensi behavioral,* cognitive*, dan* institutional-evaluative *dalam menjelaskan kepatuhan pajak generasi Z serta penekanan pada pengetahuan tarif pajak sebagai kemampuan kognitif yang paling menentukan kepatuhan. Temuan ini mengimplikasikan perlunya penguatan edukasi dan literasi perpajakan yang praktis, mudah dipahami, dan berbasis digital untuk meningkatkan kemampuan generasi Z dalam memahami dan memenuhi kewajiban perpajakannya.*

Kata Kunci*: Generasi Z, Kepatuhan Wajib Pajak, Kesadaran Wajib Pajak, Pengetahuan Tarif Pajak, Wajib Pajak Orang Pribadi.*

INTRODUCTION

Tax revenue remains a fundamental source of state financing and plays an important role in supporting public services, infrastructure development, and national economic activities. In a self-assessment tax system, the achievement of tax revenue targets depends not only on the effectiveness of tax administration but also on taxpayers' willingness to voluntarily fulfill their tax obligations. Tax compliance therefore represents an important behavioral dimension of taxation because it reflects taxpayers' willingness to calculate, pay, and report their tax liabilities accurately and on time. Despite continuous improvements in tax administration, taxpayer compliance remains an important challenge in Indonesia. The Indonesian government has undertaken various tax reforms through administrative simplification, digitalization, and the development of electronic tax services. However, improvements in tax administration do not necessarily guarantee consistent taxpayer compliance. Data from the Directorate General of Taxes indicate that the annual tax return submission compliance ratio increased from 58.87% in 2014 to 86.97% in 2023 but subsequently declined to 85.75% in 2024 and 76.07% in 2025. This fluctuation indicates that a substantial compliance gap remains and suggests that administrative reform alone may not be sufficient to establish sustainable voluntary tax compliance. Consequently, greater attention needs to be given to the behavioral and cognitive factors that shape taxpayers' decisions to comply (Direktorat Jenderal Pajak, 2016, 2020, 2021, 2023, 2024, 2025, 2026).

This issue is particularly relevant to generation Z, who are increasingly entering the productive workforce and becoming individual taxpayers. In this study, generation Z refers to individuals born between 1997 and 2012. As this generation enters employment and income-generating activities, an increasing proportion is exposed to personal income tax obligations, including the responsibility to understand, calculate, pay, and report taxes. Generation Z has also developed within a highly digitalized environment characterized by extensive access to information and technology. Consequently, their tax compliance behavior may be influenced by their awareness of tax obligations, understanding of tax regulations, and perceptions of the fairness, transparency, and accessibility of the tax system. Previous studies have identified various determinants of taxpayer compliance. Hassan et al., (2021) found that tax compliance simplicity, tax morale, and perceptions regarding government expenditure are associated with voluntary tax compliance. In Indonesia, Hamilah & Fricilia, (2023) found that tax knowledge and income level influence individual taxpayer compliance, while Lestari & Sinambela, (2022) reported that information technology utilization contributes to taxpayer compliance. These findings demonstrate that tax compliance is multidimensional and may be influenced by psychological, cognitive, and institutional factors. One important behavioral determinant is taxpayer awareness. Tax awareness reflects taxpayers' understanding that paying taxes is a legal and civic obligation as well as their willingness to fulfill such obligations voluntarily. Within the theory of planned behavior (TPB), awareness can be associated with a positive attitude toward compliance and consequently contribute to behavioral intention. Le et al., (2024) found that tax awareness influences tax compliance, while Agustine & Pangaribuan, (2022) and Setiawan & Yanti, (2024) reported a positive relationship between taxpayer awareness and individual taxpayer compliance. These findings generally suggest that greater awareness leads to greater compliance. Nevertheless, the existing evidence is not entirely sufficient to establish how awareness operates specifically among generation Z individual taxpayers. Most previous studies discussed taxpayer awareness in broader taxpayer populations, while the present study focuses specifically on a younger generation that has distinctive exposure to digital information and tax administration. This creates a contextual research gap, because findings derived from general taxpayer populations cannot automatically be assumed to apply to generation Z. The behavioral characteristics and information environment of this generation provide a relevant basis for further empirical investigation.

A second important determinant is tax rate knowledge. Tax rate knowledge refers to taxpayers' understanding of applicable tax rates, taxable income, and the mechanisms used to calculate tax liabilities. Knowledge of tax rates is important because taxpayers need sufficient cognitive capability to determine the amount of tax they are required to pay. In the TPB perspective, this knowledge can be related to perceived behavioral control because taxpayers with adequate knowledge may feel more capable of performing their tax obligations correctly. Lamichhane et al., (2024) identify a relationship between tax knowledge and tax compliance, while Caroline et al., (2023) report that tax rates and tax understanding positively influence taxpayer compliance. However, the empirical evidence concerning tax rate knowledge remains inconsistent. Caroline et al., (2023) found a positive effect of tax rates and tax understanding on compliance, whereas Sinaga et al., (2023) and Kamila et al., (2023) reported that tax rates did not significantly influence taxpayer compliance. This inconsistency constitutes an important empirical gap. Moreover, previous studies have frequently examined tax knowledge in a broad sense, whereas the present study specifically focuses on knowledge of tax rates and their application. Thus, further investigation is needed to determine whether specific knowledge regarding tax rates contributes to compliance among generation Z individual taxpayers. The third determinant examined in this study is taxpayer perception. Taxpayer perception reflects individuals' subjective evaluations of the fairness of tax burdens, the credibility and professionalism of tax authorities, the quality of tax services, transparency, and the ease of tax administration. Such perceptions may influence whether taxpayers view compliance as a legitimate and worthwhile behavior. The slippery slope framework emphasizes the importance of trust in tax authorities in encouraging voluntary compliance. Batrancea et al., (2019) demonstrate the importance of trust and power in determining tax compliance across countries, while Gangl et al., (2020) show that legitimate authority and quality public services can strengthen trust and compliance. More recently, Musah et al., (2026) found that perceptions of tax fairness positively influence compliance behavior. Although previous research provides evidence regarding the importance of taxpayer perceptions, a gap remains in understanding how these perceptions interact conceptually with awareness and specific tax-rate knowledge within the same compliance framework. Awareness reflects an internal behavioral orientation, tax rate knowledge represents a cognitive capability, while perception reflects an evaluation of the external institutional environment. Examining these dimensions separately may provide only a fragmented explanation of taxpayer compliance. Therefore, an integrated framework is necessary to understand whether these different dimensions simultaneously contribute to compliance among generation Z.

Research Gap

Based on the preceding literature, three research gaps can be identified. First, previous studies have produced inconsistent empirical findings regarding the relationship between tax rates or tax knowledge and taxpayer compliance. While Caroline et al., (2023) found a positive relationship, Sinaga et al., (2023) and Kamila et al., (2023) reported insignificant effects. This inconsistency indicates that the cognitive dimension of tax compliance requires further empirical examination, particularly when tax knowledge is operationalized specifically as knowledge of tax rates. Second, there is a contextual gap concerning generation Z individual taxpayers. Existing studies have generally examined taxpayers as a broad population, whereas generation Z represents an emerging taxpayer group with distinctive digital exposure, information-access patterns, and interaction with technology-based tax administration. Consequently, evidence from general taxpayer populations may not fully capture the behavioral determinants of compliance among this younger generation. Third, there is an integrative gap. Existing research tends to examine individual determinants of tax compliance, such as awareness, knowledge, trust, perception, or tax morale. Relatively limited attention has been given to integrating behavioral awareness, specific tax-rate knowledge, and taxpayer perceptions within a single empirical framework. Such integration is important because tax compliance may result from the combination of an individual's willingness to comply, ability to understand tax obligations, and evaluation of the tax system.

Novelty and Contribution

To address these gaps, this study develops an integrated behavioral-cognitive-perceptual framework for explaining tax compliance among generation Z individual taxpayers. The novelty of this study is not merely the simultaneous testing of three independent variables, but the conceptualization of the three variables as complementary dimensions of taxpayer compliance. Taxpayer awareness represents the behavioral dimension, tax rate knowledge captures the cognitive dimension, and taxpayer perception reflects the institutional-evaluative dimension. Furthermore, this study provides a more specific examination of tax rate knowledge rather than general tax knowledge. This distinction is important because understanding the applicable tax rate and its calculation directly relates to taxpayers' ability to determine and fulfill their tax liabilities. The study therefore responds to the inconsistent findings in previous research by testing this relationship within the context of generation Z individual taxpayers. The focus on generation Z also constitutes an important contextual contribution. Rather than treating generation Z merely as another demographic category, this study positions the group as an emerging taxpayer population whose compliance behavior may shape the future sustainability of voluntary tax compliance. By examining generation Z individual taxpayers in Jakarta, the study provides empirical evidence concerning how behavioral awareness, cognitive tax-rate knowledge, and perceptions of the tax system contribute to compliance within a digitally oriented younger taxpayer population.

The empirical model is grounded primarily in the theory of planned behavior, which explains how attitudes, perceived behavioral control, and behavioral intentions influence individual behavior. Taxpayer awareness can reflect a favorable attitude toward fulfilling tax obligations, while tax rate knowledge may strengthen perceived behavioral control. The model is also supported by the slippery slope framework, particularly in explaining the role of taxpayer perceptions and trust in the tax authority in encouraging voluntary compliance. This study focuses on individual taxpayers belonging to generation Z who reside and/or work in Jakarta. The research employs a quantitative causal-associative approach, with data collected through an online questionnaire. The sample consists of 80 respondents selected using accidental sampling, while the relationships among the constructs are analyzed using partial least squares structural equation modeling (PLS-SEM). The results provide further support for the proposed framework. Taxpayer awareness has a positive and significant effect on tax compliance ($\beta = 0.248$; $p = 0.004$), tax rate knowledge has the strongest positive and significant effect ($\beta = 0.448$; $p < 0.001$), and taxpayer perception also has a positive and significant effect ($\beta = 0.172$; $p = 0.036$). Collectively, the three variables explain 49.1% of the variance in tax compliance. These findings indicate that generation Z tax compliance is not determined by a single factor. Rather, compliance is associated with the combination of awareness as a behavioral orientation, tax rate knowledge as cognitive capability, and taxpayer perception as an institutional evaluation. The findings therefore contribute to the development of a more comprehensive understanding of generation Z tax compliance and provide practical implications for tax authorities in designing targeted tax education, digital communication, and taxpayer-service strategies. Accordingly, this study aims to examine the effects of taxpayer awareness, tax rate knowledge, and taxpayer perceptions on the tax compliance of generation Z individual taxpayers in Jakarta. The study is expected to contribute to the tax compliance literature by addressing the identified empirical, contextual, and integrative gaps while providing practical insights for strengthening voluntary tax compliance among the emerging generation Z taxpayer population.

LITERATURE REVIEW

Grand Theory

Theory of Planned Behavior

The theory of planned behavior (TPB) developed by Ajzen, (1991) provides the primary theoretical foundation for explaining individual behavior. The theory proposes that human behavior is primarily determined by behavioral intention, while behavioral intention is influenced by three major components: attitude toward the behavior, subjective norms, and perceived behavioral control. Perceived behavioral control may also directly influence behavior when individuals possess sufficient control over the resources and capabilities required to perform the behavior (Ajzen, 1991). In the context of taxation, tax compliance can be understood as a behavioral outcome resulting from an individual’s intention and capability to fulfill tax obligations. Taxpayer awareness can be associated with attitude toward the behavior, because taxpayers who recognize the importance and responsibility of taxation are more likely to develop favorable attitudes toward complying with tax obligations. Tax rate knowledge can be associated with perceived behavioral control, because taxpayers who understand tax rates and calculation procedures are more capable and confident in fulfilling their obligations. Taxpayer perceptions can influence both attitudes and behavioral intentions because taxpayers’ evaluations of fairness, service quality, transparency, and tax authorities may shape their willingness to comply. The relevance of TPB to tax compliance has been supported by empirical studies. Research on individual taxpayers has demonstrated that TPB constructs, including attitudes, subjective norms, and perceived behavioral control, are relevant in explaining compliance behavior. More recent research also continues to employ TPB to explain taxpayer compliance, including studies involving generation Z. Therefore, TPB provides a suitable theoretical foundation for integrating the behavioral, cognitive, and perceptual dimensions examined in this study.

Supporting Theory

Slippery Slope Framework

In addition to TPB, this study employs the slippery slope framework developed by Kirchler et al., (2008) as a supporting theoretical perspective. The framework explains tax compliance through two principal dimensions: trust in tax authorities and power of tax authorities. High trust in tax authorities is expected to encourage voluntary compliance, whereas compliance resulting primarily from enforcement and coercive power tends to represent enforced compliance. The framework is particularly relevant to taxpayer perception, because taxpayers evaluate the fairness, credibility, professionalism, transparency, and quality of services provided by tax authorities. A positive perception of the tax system can increase trust and consequently encourage voluntary compliance. The original study in the manuscript also positions taxpayer perception within the slippery slope framework. Thus, TPB primarily explains the individual behavioral and cognitive mechanisms, whereas the slippery slope framework provides an institutional perspective for explaining how taxpayers' perceptions of tax authorities can shape compliance.

Tax Compliance

Tax compliance refers to the extent to which taxpayers fulfill their tax obligations in accordance with applicable regulations. In this study, tax compliance includes the taxpayer's ability and willingness to calculate tax liabilities correctly, pay taxes on time, submit annual tax returns on time, and report income in accordance with tax regulations. These indicators are consistent with the operationalization contained in the research instrument. Tax compliance should not be viewed solely as an administrative outcome. It also represents a behavioral response to taxation. A taxpayer may possess the formal ability to comply but may not necessarily be willing to do so. Consequently, understanding compliance requires consideration of taxpayers' awareness, knowledge, attitudes, perceptions, and interactions with tax authorities. From the TPB perspective, compliance is the behavioral outcome of an individual's intention and perceived ability to perform the required behavior. From the slippery slope perspective, compliance may arise from trust in tax authorities or from the perceived power of the tax authority. Recent empirical research continues to demonstrate that tax awareness and tax knowledge are important determinants of tax compliance among generation Z taxpayers.

Taxpayer Awareness

Taxpayer awareness refers to an individual's recognition that paying taxes is a legal obligation and a form of responsibility toward the state and society. Awareness also includes understanding the function of taxation and the willingness to fulfill tax obligations voluntarily. In the present study, taxpayer awareness is measured through four indicators: recognizing tax payment as an obligation, understanding the function of taxation, recognizing the necessity of fulfilling tax obligations according to regulations, and willingness to comply voluntarily. Taxpayer awareness can be explained through TPB, particularly the attitude toward behavior component. Individuals who understand the importance of taxation and perceive tax compliance as a responsibility are more likely to develop positive attitudes toward fulfilling tax obligations. Such positive attitudes may strengthen the intention to comply. Empirical research supports this theoretical relationship. Le et al., (2024) as cited in the original manuscript, found that tax awareness influences tax compliance. Agustine & Pangaribuan, (2022) and Setiawan & Yanti, (2024) also reported positive relationships between taxpayer awareness and individual taxpayer compliance. Research focusing on generation Z similarly identifies tax awareness as an important determinant of compliance. A recent study of generation Z taxpayers found that tax awareness had a positive and significant relationship with tax compliance. Therefore, taxpayers with higher awareness are expected to demonstrate higher tax compliance.

H_1: Taxpayer awareness has a positive and significant effect on tax compliance among generation Z individual taxpayers.

Tax Rate Knowledge

Tax rate knowledge refers to taxpayers' understanding of applicable individual income tax rates, taxable income, tax calculation procedures, and different tax treatments for particular types of income. In this study, tax rate knowledge is operationalized through knowledge of tax brackets and rates, types of taxable income, calculation of tax liabilities, and differences in tax treatment for certain types of income.

Tax rate knowledge represents the cognitive dimension of taxpayer compliance. A taxpayer may be willing to comply but still experience difficulties if they lack sufficient knowledge regarding the amount of tax that must be paid. Therefore, knowledge provides taxpayers with the cognitive capability required to perform tax obligations accurately. Within TPB, tax rate knowledge is closely related to perceived behavioral control. Individuals with adequate knowledge are more likely to feel capable of calculating, paying, and reporting their tax obligations. Conversely, insufficient knowledge may create uncertainty and reduce the taxpayer's ability to perform compliant behavior. Previous research has demonstrated a positive relationship between tax knowledge and tax compliance. Lamichhane et al., (2024) reported an association between tax knowledge and compliance, while Caroline et al., (2023) found that tax rates and tax understanding positively influence taxpayer compliance. Recent evidence also continues to support the relevance of tax knowledge. Research on generation Z taxpayers found that tax knowledge positively and significantly affects tax compliance. In addition, research based on TPB demonstrates that tax knowledge is relevant to the relationship between planned behavior constructs and taxpayer compliance. However, the findings are not entirely consistent. The manuscript identifies studies by Sinaga et al., (2023) and Kamila et al., (2023) that reported insignificant effects of tax rates on compliance, contrasting with the positive findings of Caroline et al., (2023). This inconsistency provides an empirical basis for retesting the relationship, particularly by focusing specifically on tax rate knowledge rather than general tax knowledge.

H_2: Tax rate knowledge has a positive and significant effect on tax compliance among generation Z individual taxpayers.

Taxpayer Perception

Taxpayer perception represents the taxpayer's subjective evaluation of the tax system and tax authorities. It encompasses perceptions regarding tax fairness, trust in tax authorities, service quality, transparency, and the ease of tax administration. The present study measures taxpayer perception through four dimensions: perceived fairness of tax burdens, perceived honesty and professionalism of tax authorities, perceived quality of tax services, and perceived ease of tax administration, including digital services such as e-filing and e-billing. Taxpayer perception can be explained particularly well through the slippery slope framework. When taxpayers perceive tax authorities as trustworthy, fair, professional, and legitimate, they are more likely to develop trust in the tax system. Such trust can encourage voluntary compliance rather than compliance based solely on enforcement. Taxpayer perception can also be linked to TPB because perceptions regarding the tax system may influence attitudes toward tax compliance. A taxpayer who perceives the tax system as fair and transparent is more likely to evaluate compliance positively and develop a stronger intention to comply. Batrancea et al., (2019) demonstrated the importance of trust in tax authorities in explaining tax compliance, while Gangl et al., (2020) emphasized the role of legitimate authority and quality services in strengthening taxpayer trust and compliance. More recent evidence also suggests that perceived tax fairness is positively associated with tax compliance behavior. Accordingly, taxpayers who perceive the tax system positively are expected to demonstrate stronger compliance behavior.

H_3: Taxpayer perception has a positive and significant effect on tax compliance among generation Z individual taxpayers.

Integrated Theoretical Argument

The three independent variables in this study represent different but complementary dimensions of taxpayer behavior. Taxpayer awareness represents the behavioral/attitudinal dimension, because awareness reflects taxpayers' recognition and willingness to fulfill their obligations. Tax rate knowledge represents the cognitive/capability dimension, because knowledge enables taxpayers to understand and perform their tax obligations correctly. Taxpayer perception represents the institutional-evaluative dimension, because taxpayers evaluate the fairness, credibility, transparency, and quality of the tax system. The integration of these dimensions strengthens the explanatory capacity of the research model. A taxpayer may have a positive attitude toward taxation but lack sufficient knowledge to comply correctly. Conversely, a taxpayer may possess adequate knowledge but have negative perceptions of the tax system. Therefore, tax compliance may be better understood when behavioral orientation, cognitive capability, and institutional perception are examined simultaneously. This integrated approach is also consistent with recent literature suggesting that generation Z tax compliance is multidimensional and involves tax literacy, awareness, digital interaction, and other behavioral factors.

Hypothesis Development

Based on the theoretical arguments and empirical findings discussed above, the hypotheses are formulated as follows:

H_1: Taxpayer awareness has a positive and significant effect on tax compliance among generation Z individual taxpayers.

H_2: Tax rate knowledge has a positive and significant effect on tax compliance among generation Z individual taxpayers.

H_3: Taxpayer perception has a positive and significant effect on tax compliance among generation Z individual taxpayers.

Conceptual Framework

The conceptual framework is developed based on theory of planned behavior as the primary grand theory and slippery slope framework as the supporting theory.

Primary Theory:

Theory of Planned Behavior (TPB)

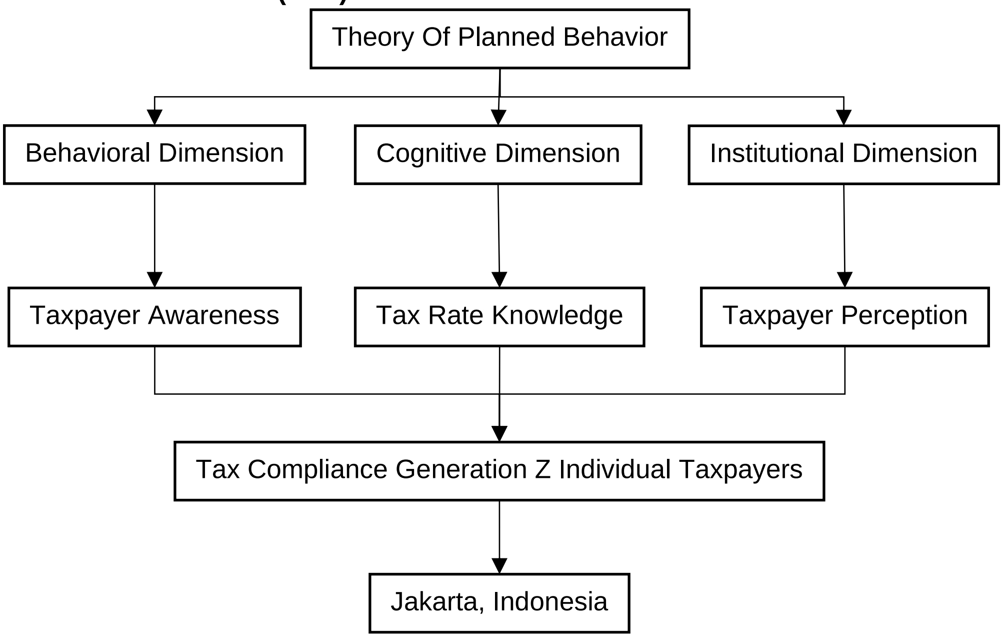

Figure 1 Conceptual Framework

Source: Processed by author (2026).

Supporting Theory:

Slippery Slope Framework

Table 1. Conceptual Framework

Variable	Theoretical Role	Theoretical Foundation	Expected Relationship
Taxpayer awareness (X_1)	Behavioral/attitudinal dimension	Theory of planned behavior	Positive → tax compliance
Tax rate knowledge (X_2)	Cognitive/perceived behavioral control	Theory of planned behavior	Positive → tax compliance
Taxpayer perception (X_3)	Institutional/evaluative dimension	Slippery slope framework + TPB	Positive → tax compliance
Tax compliance (Y)	Behavioral outcome	TPB + slippery slope framework	-

Source: Processed by author (2026).

Research Model and Contribution

The main contribution of the proposed framework is its attempt to explain generation Z tax compliance through three complementary mechanisms rather than treating compliance as the consequence of a single determinant. This is especially relevant because recent studies of generation Z have already examined tax knowledge, tax awareness, and digitalization, while other studies have examined tax attitudes and knowledge.

RESEARCH METHOD

Research Design

This study employs a quantitative approach with a causal-associative research design to analyze the effects of taxpayer awareness, tax rate knowledge, and taxpayer perception on tax compliance among generation Z individual taxpayers in Jakarta. The relationships among the variables are examined using statistical analysis based on the formulated research hypotheses.

Population and sample, the population of this study consists of generation Z individual taxpayers who reside and/or work in Jakarta, Indonesia. Generation Z is defined as individuals born between 1997 and 2012. The respondents were further characterized as individuals aged 18-26 years who have income and possess a taxpayer identification number (NPWP). Because the exact number of generation Z individual taxpayers in Jakarta who meet these specific criteria is not available, the population is classified as an unknown population. The sample was determined using a non-probability sampling technique, specifically accidental sampling. Respondents were selected based on their accessibility and conformity with the predetermined criteria. The criteria included generation Z individual taxpayers who reside and/or work in Jakarta, have income subject to article 21 income tax, possess an NPWP, and are willing to complete the research questionnaire.

The minimum sample size was determined using the rule of thumb proposed by Hair et al., (2019), namely a minimum of five respondents for each measurement indicator. This study contains 16 indicators consisting of four indicators for each of the four research constructs. Therefore, the minimum sample size was calculated as follows:

Minimum sample size = 16 indicators × 5 = 80 respondents……………………………………………… (1)

Accordingly, the final sample consisted of 80 respondents.

Because the unit of analysis in this study is an individual generation Z taxpayer and the research uses a cross-sectional survey design, each respondent represents one observation. Therefore, the number of observations is 80 individual observations, obtained from the 80 respondents who met the research criteria.

Data Collection Technique

The research data were collected through a survey by distributing an online questionnaire using Google Forms. The questionnaire consisted of two sections: respondent characteristics and statements measuring taxpayer awareness, tax rate knowledge, taxpayer perception, and tax compliance. All indicators were measured using a five-point likert scale, ranging from 1 (strongly disagree/very poor understanding) to 5 (strongly agree/very good understanding). The collected data were subsequently analyzed using structural equation modeling-partial least squares (SEM-PLS) to examine the relationships among the variables in the research model.

Data Analysis Technique

The data were analyzed using structural equation modeling-partial least squares (SEM-PLS) with the assistance of smart-PLS 4. This method was selected because it enables the simultaneous analysis of relationships among latent variables through the evaluation of the measurement model (outer model) and structural model (inner model).

The analysis stages included descriptive statistical analysis to describe the characteristics of the respondents, evaluation of the outer model to assess construct validity and reliability, and evaluation of the inner model to test the research hypotheses. The structural model was evaluated using path coefficients, the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2).

Operational Definitions of Variables

Tax Compliance (Y)

Tax compliance is defined as the extent to which taxpayers fulfill their tax obligations in accordance with applicable regulations, including the accuracy and timeliness of calculating, paying, and reporting taxes. This variable is measured using four indicators adapted from Hamilah & Fricilia, (2023), Hassan et al., (2021), and Yogama et al. (2024): (1) compliance in calculating tax liabilities, (2) compliance in paying taxes on time, (3) compliance in submitting tax returns on time, and (4) compliance in reporting income in accordance with tax regulations.

Taxpayer Awareness (X_1)

Taxpayer awareness refers to the condition in which taxpayers understand that paying taxes is a civic obligation and demonstrate willingness to fulfill their tax obligations voluntarily. Le et al., (2024) indicate that tax awareness influences tax compliance, while (Ikhwanudin et al., 2026) emphasize its role in improving taxpayer compliance. This variable is measured using four indicators: (1) recognizing that paying taxes is a taxpayer obligation, (2) understanding the function of taxes in financing the state and public interests, (3) recognizing that tax obligations must be fulfilled according to applicable regulations, and (4) willingness to fulfill tax obligations voluntarily.

Tax Rate Knowledge (X_2)

Tax rate knowledge refers to the taxpayer's understanding of applicable tax rates and the procedures for imposing taxes on income in accordance with prevailing tax regulations. Lamichhane et al., (2024) indicate that tax knowledge is associated with tax compliance, while Caroline et al., (2023) find that tax rates and tax understanding positively affect taxpayer compliance. In this study, tax rate knowledge is measured using four indicators: (1) knowledge of individual income tax brackets and rates, (2) understanding of types of taxable income, (3) understanding how to calculate tax liabilities according to applicable rates, and (4) knowledge of different tax treatments for certain types of income.

Taxpayer Perception (X_3)

Taxpayer perception refers to taxpayers' subjective evaluations of the tax system, including tax fairness, trust in tax authorities, service quality, and the ease of tax administration. Batrancea et al., (2019) explain that trust in tax authorities plays an important role in encouraging voluntary compliance. Gangl et al., (2020) further demonstrate that legitimate authority and good public services can strengthen taxpayer trust and compliance. In this study, taxpayer perception is measured using four indicators: (1) the perception that tax rates or tax burdens are fair, (2) the perception that tax authorities or officers work honestly, professionally, and reliably, (3) the perception that tax services are good and helpful, and (4) the perception that tax administration procedures, including digital systems such as e-filing and e-billing, are easy to understand and use.

FINDINGS AND DISCUSSION

Findings

Measurement Model Evaluation (Outer Model)

Convergent Validity Test

Table 2. Initial Item Loadings and AVE

Variable	Item	Outer Loadings	Average Variance Extracted (AVE)
Taxpayer awareness	X1.1	0.903	0.876
	X1.2	0.865	
	X1.3	0.935	
	X1.4	0.877	
Tax rate knowledge	X2.1	0.857	0.802
	X2.2	0.838	
	X2.3	0.883	
	X2.4	0.881	
Taxpayer perception	X3.1	0.812	0.749
	X3.2	0.899	
	X3.3	0.899	
	X3.4	0.900	
Tax compliance	Y.1	0.871	0.771
	Y.3	0.973	
	Y.4	0.933	
	Y.2	0.965	

Source: Processed data using smart-PLS 4, (2026).

The original table reports outer loadings ranging from 0.812 to 0.973 and AVE values above 0.50 for all constructs.

Based on table 2, all indicators of taxpayer awareness, tax rate knowledge, taxpayer perception, and tax compliance have outer loading values above 0.70, ranging from 0.812 to 0.973, indicating that each indicator adequately reflects its respective construct. In addition, all constructs have average variance extracted (AVE) values exceeding the recommended threshold of 0.50, with values of 0.876 for taxpayer awareness, 0.802 for tax rate knowledge, 0.749 for taxpayer perception, and 0.771 for tax compliance. These AVE values indicate that each construct explains more than 50% of the variance in its corresponding indicators. Therefore, all indicators meet the criteria for convergent validity and can be considered valid and appropriate for further analysis.

Discriminant Validity Test

Table 3. Cross Loading Values

Item	X1	X2	X3	Y
X1.1	0.903	0.289	0.303	0.402
X1.2	0.865	0.450	0.409	0.429
X1.3	0.935	0.374	0.347	0.404
X1.4	0.877	0.551	0.348	0.605
X2.1	0.434	0.857	0.329	0.435
X2.2	0.455	0.838	0.347	0.552
X2.3	0.355	0.883	0.314	0.645
X2.4	0.445	0.881	0.336	0.519
X3.1	0.359	0.367	0.812	0.284
X3.2	0.275	0.271	0.899	0.384
X3.3	0.360	0.290	0.899	0.383
X3.4	0.391	0.413	0.900	0.462
Y.1	0.449	0.519	0.455	0.871
Y.2	0.512	0.601	0.431	0.973
Y.3	0.509	0.646	0.367	0.933
Y.4	0.520	0.600	0.403	0.965

Source: Processed data using smart-PLS 4, (2026).

Based on table 3, all indicators have the highest cross-loading values on their respective constructs compared with the other constructs, with all values exceeding 0.60. These results indicate that each indicator can adequately distinguish its corresponding construct from the other constructs. Therefore, all variables in this study meet the criteria for discriminant validity and are considered appropriate for further analysis.

Reliability Test

Table 4. Cronbach's Alpha and Composite Reliability

Variable	Cronbach's Alpha	Composite Reliability
Taxpayer awareness (X_1)	0.952	0.956
Tax rate knowledge (X_2)	0.919	0.949
Taxpayer perception (X_3)	0.889	0.903
Tax compliance (Y)	0.902	0.925

Source: Processed data using smart-PLS 4, (2026).

Based on table 4, all research variables have cronbach's alpha and composite reliability values above 0.70. These results indicate that all variables meet the established reliability criteria. Therefore, the research instrument can be considered reliable and capable of measuring the research constructs consistently.

Structural Model Evaluation (Inner Model)

Multicollinearity Test (VIF)

Table 5. Collinearity Statistics (VIF)

Variable	VIF
Taxpayer awareness → tax compliance	1.398
Tax rate knowledge → tax compliance	1.383
Taxpayer perception → tax compliance	1.255

Source: Processed data using smart-PLS 4, (2026).

Based on table 5, all independent variables have variance inflation factor (VIF) values below 5. These results indicate that the research model does not suffer from multicollinearity, and therefore, the model is suitable for further analysis.

Coefficient of Determination (R^2)

Table 6. R-Square Values

Variable	R-square	R-square adjusted
Tax compliance	0.491	0.471

Source: Processed data using smart-PLS 4, (2026).

Based on table 6, the R-square value for the tax compliance variable is 0.491, while the adjusted R-square value is 0.471. These results indicate that taxpayer awareness, tax rate knowledge, and taxpayer perception collectively explain 49.1% of the variance in tax compliance, while the remaining 50.9% is explained by other variables outside the research model.

Predictive Relevance Test (Q^2)

Table 7. Predictive Relevance Values

Variabel	Q^2predict	RMSE	MAE
Tax compliance	0.427	0.786	0.556

Source: Processed data using smart-PLS 4, (2026).

Based on the Q^2 predict analysis, the endogenous variable, namely tax compliance, has a Q^2predict value of 0.427. Since the Q^2 predict value is greater than 0, the model demonstrates predictive relevance for the tax compliance variable. This indicates that the research model has predictive capability in explaining and predicting tax compliance among generation Z individual taxpayers in Jakarta. In addition, the RMSE value of 0.786 and MAE value of 0.556 indicate the prediction error produced by the model. Therefore, the results of the Q^2 predict test confirm that the proposed model has adequate predictive relevance for tax compliance.

Effect Size (f^2) Test

Table 8. Effect Size (f^2)

Variable	Tax Compliance	Interpretation
Taxpayer awareness	0.087	Small effect
Tax rate knowledge	0.285	Medium effect
Taxpayer perception	0.046	Small effect

Source: Processed data using smart-PLS 4, (2026).

The findings in table 8 provide an important insight into the relative contribution of the explanatory variables to tax compliance. Although taxpayer awareness and taxpayer perception have significant relationships with tax compliance, their effect sizes are relatively small, with f^2 values of 0.087 and 0.046, respectively. In contrast, tax knowledge demonstrates the strongest substantive contribution, with an f^2 value of 0.285, classified as a medium effect. This finding becomes even more important when considered alongside the structural coefficient, where tax knowledge has the largest beta coefficient (β = 0.448), a t-statistic of 4.941, and a p-value of 0.000. Thus, tax knowledge is not only statistically significant but also represents the dominant predictor of tax compliance among generation Z taxpayers in this study. The consistency between the largest β coefficient and the largest f^2 value strengthens the interpretation that tax knowledge has a substantively greater role in shaping compliance behavior than taxpayer awareness and taxpayer perception.

This finding provides a distinctive empirical contribution and novelty to the existing tax-compliance literature. Previous studies generally position tax knowledge as one of several factors that may influence compliance, alongside awareness, perceptions, trust, sanctions, or attitudes. However, the present study demonstrates more specifically that, among generation Z individual taxpayers, tax knowledge constitutes the most influential factor within the proposed model. This distinction is important because generation Z represents a younger taxpayer group whose interaction with taxation increasingly occurs within a digital environment, including employment, freelancing, entrepreneurship, online transactions, and digital platforms. Their relatively high exposure to digital information does not automatically guarantee tax compliance; rather, digital access becomes behaviorally meaningful when individuals possess sufficient knowledge to interpret and apply tax rules. The present finding therefore extends previous research by shifting the emphasis from merely having access to tax information toward possessing actionable tax knowledge that enables young taxpayers to understand their tax obligations and translate that understanding into compliant behavior.

The finding can be theoretically explained through the theory of planned behavior (TPB), particularly the concept of perceived behavioral control. Tax compliance requires taxpayers not only to have a positive attitude toward taxation but also to understand how to perform the required behavior. Knowledge of tax rates, taxable objects, calculation procedures, payment mechanisms, reporting requirements, and applicable regulations can increase taxpayers' confidence in their ability to fulfill their obligations correctly. For generation Z, this mechanism is particularly relevant because tax administration is increasingly digitalized, requiring taxpayers to independently access information, interpret regulations, calculate liabilities, and complete digital tax procedures. Consequently, tax knowledge functions as a cognitive capability that transforms intention into actual compliance behavior. The result therefore reinforces the TPB perspective by showing that behavioral control in the taxation context is not merely a psychological perception of capability but is strongly associated with the actual knowledge required to execute tax obligations correctly.

The result is also consistent with the broader argument of deterrence theory, which suggests that taxpayers make compliance decisions by considering the potential consequences of non-compliance, including penalties and other enforcement risks. Taxpayers who understand tax rates and applicable regulations are better positioned to recognize both their obligations and the consequences of failing to fulfill them. Nevertheless, the present finding suggests that compliance among generation Z cannot be explained solely through fear of sanctions. Instead, knowledge appears to provide a more fundamental mechanism by which young taxpayers understand what they are required to do and how to do it. In this sense, tax knowledge may facilitate voluntary compliance by reducing uncertainty, confusion, and procedural barriers. This interpretation complements prior evidence cited in the study, including research showing a positive relationship between tax literacy or tax knowledge and tax compliance. However, the current study advances that literature by empirically demonstrating that the effect of tax knowledge is not merely positive but comparatively dominant, as evidenced simultaneously by the highest β coefficient (0.448) and the largest effect size ($f^2 = 0.285$).

The dominance of tax knowledge also offers an important explanation of why its effect exceeds those of taxpayer awareness and taxpayer perception. Awareness reflects taxpayers' recognition of the importance of fulfilling tax obligations, while perception reflects how taxpayers evaluate the fairness, administration, and benefits of the tax system. These psychological evaluations are important, but they may not be sufficient to produce correct compliance behavior when taxpayers lack the technical knowledge needed to calculate, pay, and report taxes. A generation Z taxpayer may recognize that paying taxes is important and may hold a positive perception of the tax system yet still fail to comply properly because of uncertainty regarding applicable tax rates, taxable income, filing procedures, or digital tax administration. Tax knowledge therefore represents the practical cognitive bridge between knowing that one should comply and knowing how to comply. This provides a more nuanced explanation of the findings and constitutes a key contribution of the study.

Accordingly, the finding that tax knowledge records both the largest β (0.448) and the largest f^2 (0.285) should be treated as one of the principal empirical findings of this research rather than merely as another statistically significant result. The novelty lies in identifying tax knowledge as the dominant behavioral and cognitive mechanism underlying tax compliance among generation Z individual taxpayers within the research model. This finding has theoretical implications by strengthening the role of perceived behavioral control in TPB and practical implications by suggesting that improving generation Z's tax compliance requires more than general awareness campaigns or efforts to improve perceptions of the tax system. Tax authorities and educational institutions should prioritize practical tax-literacy programs that provide young taxpayers with applicable knowledge regarding tax rates, taxable income, calculation, payment, reporting, and digital tax administration. Such interventions can reduce informational barriers and increase taxpayers' capability to convert their compliance intentions into actual compliant behavior.

Hypothesis Testing

Table 9. Hypothesis Testing Results

Variable	Tax Compliance	Interpretation
Taxpayer awareness	0.087	Small effect
Tax rate knowledge	0.285	Medium effect
Taxpayer perception	0.046	Small effect

Source: Processed data using smart-PLS 4, (2026).

The Effect of Taxpayer Awareness on Tax Compliance

Based on the hypothesis testing results, taxpayer awareness (X_1) has an original sample value of 0.248, a t-statistic value of 2.864, and a p-value of 0.004. Since the t-statistic value is greater than 1.96 and the p-value is less than 0.05, taxpayer awareness has a significant effect on tax compliance. Therefore, H_1 is accepted, indicating that taxpayer awareness affects the tax compliance of generation Z individual taxpayers in Jakarta.

The Effect of Tax Rate Knowledge on Tax Compliance

Based on the hypothesis testing results, tax rate knowledge (X_2) has an original sample value of 0.448, a t-statistic value of 4.941, and a p-value of 0.000. Since the t-statistic value is greater than 1.96 and the p-value is less than 0.05, tax rate knowledge has a significant effect on tax compliance. Therefore, H_2 is accepted, indicating that tax rate knowledge affects the tax compliance of generation Z individual taxpayers in Jakarta.

The Effect of Taxpayer Perception on Tax Compliance

Based on the hypothesis testing results, taxpayer perception (X_3) has an original sample value of 0.172, a t-statistic value of 2.102, and a p-value of 0.036. Since the t-statistic value is greater than 1.96 and the p-value is less than 0.05, taxpayer perception has a significant effect on tax compliance. Therefore, H_3 is accepted, indicating that taxpayer perception affects the tax compliance of generation Z individual taxpayers in Jakarta.

The Simultaneous Effect of Taxpayer Awareness, Tax Rate Knowledge, and Taxpayer Perception on Tax Compliance

The simultaneous effect of taxpayer awareness, tax rate knowledge, and taxpayer perception on tax compliance indicates that these three independent variables collectively contribute to explaining tax compliance among generation Z individual taxpayers in Jakarta.

Table 10. Simultaneous Test Results

Summary	Sum square	df	Mean square	F	P value
Total	833.550	79.000	0.000	0.000	0.000
Error	434.795	76.000	5.721	0.000	0.000
Regression	398.755	3.000	132.918	23.233	0.000

Source: Processed data using smart-PLS 4, (2026).

The simultaneous effect of taxpayer awareness, tax rate knowledge, and taxpayer perception on tax compliance. Based on table 10, the simultaneous test produces an F-statistic of 23.233 with a p-value of 0.000. Since the p-value is lower than the 0.05 significance level ($0.000 < 0.05$), the regression model is statistically significant. This result indicates that taxpayer awareness, tax rate knowledge, and taxpayer perception simultaneously have a significant effect on tax compliance. Therefore, the hypothesis stating that taxpayer awareness, tax rate knowledge, and taxpayer perception jointly affect tax compliance is supported. The model also produces an R-square (R^2) value of 0.491 and an adjusted R-square of 0.471, indicating that the three independent variables collectively explain 49.1% of the variance in tax compliance, while the remaining 50.9% is attributable to other factors outside the research model. In addition, the Q^2 value of 0.491 (>0) indicates that the model has predictive relevance. These findings demonstrate that tax compliance among generation Z individual taxpayers is influenced by a combination of psychological awareness, tax-related knowledge, and perceptions of the taxation system.

From a theoretical perspective, this finding reinforces the theory of planned behavior (TPB) proposed by Ajzen, (1991), which explains that behavioral intentions and actual behavior are influenced by attitudes, perceived behavioral control, and subjective factors. In the present study, taxpayer awareness represents an internal attitude toward the importance of fulfilling tax obligations, tax rate knowledge reflects the capability required to perform tax-related behavior, and taxpayer perception represents taxpayers' evaluation of the taxation system. The simultaneous significance of these variables suggests that tax compliance is not generated by a single psychological or cognitive factor but rather by the interaction of awareness, capability, and evaluation. This finding is also consistent with the study by Ryan et al., (2024) which reported that taxpayer awareness, tax understanding, and tax-system digitalization jointly contribute to tax compliance. However, the present study extends this perspective by identifying the relative dominance of tax knowledge within the proposed behavioral framework.

Discussion

The Effect of Taxpayer Awareness on Tax Compliance

The hypothesis testing results show that taxpayer awareness (X_1) has an original sample value of 0.248, a t-statistic of 2.864, and a p-value of 0.004. Since the t-statistic exceeds 1.96 and the p-value is below 0.05, taxpayer awareness has a significant positive effect on tax compliance. Therefore, H_1 is supported, indicating that higher awareness of the importance of taxation and tax obligations is associated with higher tax compliance among generation Z individual taxpayers in Jakarta. Generation Z's extensive exposure to digital information may facilitate their awareness of the role of taxation in financing public expenditure and national development, thereby encouraging voluntary compliance in fulfilling tax obligations.

This finding is consistent with the theory of planned behavior, particularly the role of attitudes in shaping behavioral intentions. Taxpayers who recognize taxation as an important civic and economic obligation are more likely to develop favorable intentions toward compliance. The finding is also compatible with the slippery slope framework, which emphasizes the importance of trust and the broader relationship between taxpayers and tax authorities in fostering voluntary compliance. Furthermore, the result is supported by Ryan et al., (2024) who found a positive relationship between taxpayer awareness and tax compliance. However, the relatively small effect size of taxpayer awareness ($f^2 = 0.087$) compared with tax rate knowledge indicates that awareness alone may not be sufficient to ensure effective compliance. The contribution of this finding is therefore to demonstrate that awareness constitutes an important psychological foundation, but its behavioral impact is more limited when compared with the practical cognitive capability provided by tax knowledge.

From a practical perspective, tax authorities should therefore avoid relying exclusively on general awareness campaigns. Awareness-building initiatives should be complemented with practical educational content that explains how taxpayers can translate awareness into concrete actions, such as determining tax liabilities, calculating tax, making payments, and submitting tax reports.

The Effect of Tax Rate Knowledge on Tax Compliance

Tax rate knowledge (X_2) has an original sample value of 0.448, a t-statistic of 4.941, and a p-value of 0.000. The results demonstrate that tax rate knowledge has a significant positive effect on tax compliance, supporting H_2. Importantly, tax rate knowledge records the largest beta coefficient (β = 0.448) among all explanatory variables in the model. The effect-size analysis further strengthens this finding, as tax rate knowledge has an f^2 value of 0.285, representing a medium effect and the largest effect size among the independent variables. In comparison, taxpayer awareness has an f^2 of 0.087 and taxpayer perception has an f^2 of only 0.046. Therefore, the consistency between the highest β coefficient and the highest f^2 value provides strong empirical evidence that tax rate knowledge is the dominant predictor of tax compliance among generation Z individual taxpayers in Jakarta.

This finding has particular significance for generation Z because this group increasingly participates in economic activities that can generate tax obligations, including formal employment, freelancing, entrepreneurship, digital business, and platform-based economic activities. In such an environment, access to digital information alone does not necessarily produce compliant behavior. Taxpayers must possess sufficient knowledge to interpret tax regulations, identify taxable objects, understand applicable rates, calculate tax liabilities, and complete payment and reporting procedures. Thus, the finding suggests that actionable tax knowledge is more important than mere awareness or positive perceptions when young taxpayers must translate tax obligations into actual compliance behavior.

Theoretically, this finding strongly supports the perceived behavioral control component of the theory of planned behavior. Tax compliance requires taxpayers to have the knowledge and capability necessary to perform the required behavior. Tax knowledge reduces uncertainty regarding tax obligations and increases taxpayers' confidence in their ability to comply correctly. The finding is also compatible with deterrence theory, which suggests that taxpayers consider the consequences of non-compliance when making compliance decisions. Knowledge of tax rates, regulations, and sanctions can improve taxpayers' understanding of both their obligations and the potential consequences of failing to comply. Nevertheless, the magnitude of the present result suggests that knowledge does more than increase awareness of sanctions; it provides the practical capability necessary to perform compliant behavior.

The result is consistent with previous research, including Nichita et al., (2019) which found that tax literacy is positively associated with tax compliance. However, the present study makes a more specific contribution by demonstrating that tax knowledge is not merely a significant determinant but the most influential determinant within the proposed model, as demonstrated simultaneously by its highest β coefficient (0.448) and highest f^2 value (0.285). This constitutes an important empirical novelty of the study. The finding extends previous tax-compliance research by positioning tax knowledge as a central cognitive mechanism explaining compliance behavior specifically among generation Z taxpayers. In other words, the study contributes evidence that young taxpayers' compliance depends not only on whether they recognize the importance of taxation or perceive the tax system positively, but also-more fundamentally-on whether they know how to comply.

The practical implication is that tax authorities, universities, and other educational institutions should prioritize targeted tax-literacy programs for generation Z. Such programs should move beyond conceptual explanations of taxation and provide practical guidance on tax rates, taxable income, tax calculations, payment procedures, reporting requirements, and digital tax administration. The implication is particularly relevant in an increasingly digital tax environment, where taxpayers are expected to access information and perform tax procedures independently. Improving tax knowledge may therefore provide a more direct route to strengthening voluntary compliance among young taxpayers.

The Effect of Taxpayer Perception on Tax Compliance

The hypothesis testing results indicate that taxpayer perception (X_3) has an original sample value of 0.172, a t-statistic of 2.102, and a p-value of 0.036. Since the t-statistic exceeds 1.96 and the p-value is below 0.05, taxpayer perception has a significant positive effect on tax compliance. Thus, H_3 is supported. The finding indicates that more positive perceptions of the taxation system, policies, administration, fairness, transparency, and the benefits of taxation are associated with higher compliance among generation Z individual taxpayers in Jakarta.

This finding is consistent with the slippery slope framework, which emphasizes the role of trust in tax authorities in promoting voluntary compliance. It also supports the theory of planned behavior, whereby positive evaluations can contribute to favorable attitudes and intentions toward compliant behavior. The finding is consistent with Batrancea et al., (2019), which reported a positive relationship between trust in tax authorities and tax compliance. Nevertheless, the f^2 value of 0.046 indicates that taxpayer perception has a relatively small substantive effect compared with tax rate knowledge. This suggests that a positive perception of the tax system is relevant but may not be sufficient to generate compliance when taxpayers lack the knowledge required to execute their obligations correctly.

The contribution of this finding lies in demonstrating that psychological evaluations of the tax system and cognitive tax capability play different roles in shaping generation Z's compliance. While positive perceptions can strengthen willingness to comply, tax knowledge appears to provide the more direct capability for converting willingness into actual compliance. This distinction adds nuance to the TPB framework by highlighting the importance of separating motivational factors from the practical knowledge required to perform tax-related behavior.

Overall Contribution and Implications of the Findings

Taken together, the findings provide three important contributions. First, the study provides an empirical contribution by identifying tax rate knowledge as the dominant determinant of generation Z tax compliance, based on its highest β coefficient (0.448) and largest f^2 value (0.285). This finding represents the central novelty of the research because previous studies have generally treated tax knowledge as one determinant among several, whereas the present evidence demonstrates its relative dominance within a generation Z context. Second, the study contributes theoretically by strengthening the role of perceived behavioral control within the theory of planned behavior, showing that tax compliance requires not only favorable attitudes and perceptions but also sufficient cognitive capability to perform tax obligations. Third, the study contributes practically by suggesting that tax-compliance policies for generation Z should shift from awareness-oriented approaches toward knowledge-based and action-oriented tax education.

The findings also have important implications for tax authorities. Because 49.1% of the variance in tax compliance is explained by taxpayer awareness, tax rate knowledge, and taxpayer perception, the model demonstrates meaningful explanatory capability, although 50.9% remains attributable to other factors outside the model. Consequently, future research should consider additional determinants such as tax-system digitalization, trust in tax authorities, perceived fairness, tax morale, sanctions, service quality, financial literacy, and subjective norms. For policymakers, however, the strongest immediate implication is that strengthening generation Z's practical tax knowledge may yield greater compliance benefits than relying solely on awareness campaigns or attempts to improve perceptions of the tax system. Tax education should therefore be designed as an applied capability-building intervention that enables young taxpayers to understand, calculate, pay, and report their tax obligations accurately.

Overall, the findings suggest that generation Z tax compliance is shaped by the combined influence of awareness, knowledge, and perception, but these factors do not contribute equally. The dominant role of tax rate knowledge demonstrates that knowing how to comply is a critical prerequisite for complying. This provides a distinctive empirical contribution to the literature and offers a clear policy direction: strengthening tax literacy and practical tax capabilities among generation Z should become a central component of strategies aimed at increasing voluntary tax compliance.

Among the examined determinants, tax knowledge emerges as the strongest predictor of generation Z's tax compliance, as indicated by the highest path coefficient ($\beta = 0.448$) and the largest effect size ($f^2 = 0.285$). This finding provides an important empirical contribution because it suggests that, within the generation Z context, tax compliance is driven more strongly by the ability to understand tax rules, obligations, procedures, and consequences than by the other explanatory factors examined in this study. The magnitude of the coefficient indicates that an improvement in tax knowledge is associated with a substantial increase in tax compliance, while the f^2 value further demonstrates that tax knowledge makes a meaningful contribution to explaining the endogenous construct. This result can be interpreted through the theory of planned behavior (TPB), particularly its cognitive dimension: individuals are more likely to develop favorable attitudes toward compliance and perceive greater behavioral control when they possess sufficient knowledge to understand what must be reported, when taxes must be paid, and how tax obligations should be fulfilled. For generation Z, this mechanism is particularly relevant because they are increasingly entering the workforce, entrepreneurship, and digital economic activities, where tax obligations can arise through employment income, online businesses, freelance activities, and digital platforms. Compared with previous studies that generally identify tax knowledge as one of several significant determinants of compliance, the present finding extends the literature by demonstrating that tax knowledge is not merely a significant determinant but the dominant empirical driver of tax compliance among generation Z, as reflected by both the largest β and f^2 values. This distinction constitutes the study's novelty: rather than assuming that younger taxpayers' compliance is primarily shaped by attitudes, social influences, or technological familiarity, the evidence indicates that cognitive tax capability is the most influential mechanism underlying generation Z's compliance behavior. The finding therefore contributes to the existing literature by positioning tax knowledge as a central explanatory mechanism for young taxpayers and implies that improving generation Z's compliance requires not only regulatory enforcement but also systematic tax education, practical digital-tax training, and accessible tax-literacy programs that translate complex tax regulations into understandable and actionable knowledge. Thus, the dominance of tax knowledge represents one of the study's principal empirical contributions and provides a more specific explanation of why generation Z is willing and able to comply with taxation requirements.

CONCLUSION

Based on the research findings, it can be concluded that taxpayer awareness, tax rate knowledge, and taxpayer perception have positive and significant effects on tax compliance among Generation Z individual taxpayers in Jakarta, both individually and collectively. The findings indicate that tax rate knowledge is the most dominant factor in shaping Generation Z tax compliance, confirming that compliance is determined not only by awareness of the importance of taxation and positive perceptions of the tax system, but also by taxpayers' ability to understand and apply tax regulations in practice. Theoretically, these findings reinforce the Theory of Planned Behavior, particularly the role of perceived behavioral control, by demonstrating the importance of cognitive capability in translating the intention to comply into actual compliance behavior. The findings also strengthen the Slippery Slope Framework perspective by highlighting the importance of positive perceptions of the tax system and tax authorities. Practically, tax authorities and educational institutions should develop more applicable, accessible, and digitally oriented tax education, particularly concerning tax rates, taxable objects, tax calculation, payment, and reporting, accompanied by improvements in the quality, transparency, and accessibility of tax services. This study has theoretical and practical limitations because the research model includes only taxpayer awareness, tax rate knowledge, and taxpayer perception and focuses on Generation Z individual taxpayers in Jakarta. Consequently, the model does not provide a comprehensive explanation of all determinants of tax compliance and cannot be broadly generalized to other population groups or geographical areas. Future research is therefore recommended to expand the population and geographical coverage and develop the research model by incorporating other factors, such as tax digitalization, trust in tax authorities, tax sanctions, service quality, financial literacy, tax morale, subjective norms, and tax culture.

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