

Factors Influencing Taxpayer Compliance

Novindy Egaw Hantari^{1*}, Wahidahwati²

^{1*,2}Master of Accounting, Faculty of Economics, Sekolah Tinggi Ilmu Ekonomi Indonesia (STIESIA), Surabaya, Indonesia

**Corresponding Author: novindy23@gmail.com*

Article History

Received: 09-09-2026

Revised: 18-09-2026

Published: 30-09-2026

Keywords: *Taxpayer Compliance, Tax Knowledge, Taxpayer Awareness, Tax Authority Services, Tax-System Fairness.*

ABSTRACT

Individual taxpayer compliance is critical to the effectiveness of Indonesia's self-assessment tax system. However, previous studies have produced inconsistent evidence regarding the determinants of taxpayer compliance, particularly the roles of tax sanctions and perceptions of tax-system fairness. This study examines the effects of tax knowledge, taxpayer awareness, tax sanctions, tax authority services, and perceived fairness of the tax system on individual taxpayer compliance at KPP Pratama Lamongan. Using an associative quantitative design, five-point Likert questionnaire data from 100 purposively selected individual taxpayers were analyzed using multiple linear regression. Because the Glejser test indicated marginal heteroscedasticity associated with tax sanctions, HC3 robust standard errors were used for final statistical inference. The results show that tax knowledge ($p = 0.036$), taxpayer awareness ($p < 0.001$), and tax authority services ($p = 0.018$) have positive and significant effects on taxpayer compliance, whereas tax sanctions ($p = 0.086$) and perceived fairness of the tax system ($p = 0.547$) do not have significant effects. Taxpayer awareness is the most dominant predictor. The model yields $R^2 = 0.334$ and adjusted $R^2 = 0.299$. These findings highlight the importance of strengthening tax education, taxpayer awareness, and accessible service quality, while positioning sanctions as a complementary rather than primary instrument for improving taxpayer compliance.

INTRODUCTION

Tax is one of the main sources of state revenue used to finance government administration, development, and public services. In a modern tax system, the success of revenue collection is determined not only by tax rates and law enforcement but also by taxpayers' willingness to fulfill their obligations correctly and on time. Therefore, taxpayer compliance is an essential element in ensuring the sustainability of state revenue (Directorate General of Taxes, 2023).

Indonesia implements a self-assessment system that entrusts taxpayers with the responsibility to calculate, pay, and report their tax liabilities independently. Consequently, its effectiveness depends heavily on taxpayers' knowledge, awareness, and willingness to comply. Recent Indonesian evidence shows that internal tax morale and institutional trust can strengthen compliance beyond the effect of enforcement alone (Nugroho, 2021:2882–2894; Prastiwi et al., 2024:65–78).

At the national level, tax revenue performance has shown relatively positive developments. Nevertheless, aggregate revenue performance does not necessarily indicate that all taxpayer groups have the same level of compliance. Differences in occupational characteristics, tax withholding mechanisms, understanding of tax regulations, and the intensity of interactions with tax authorities may result in variations in compliance, particularly between Individual Taxpayers (WPOP) whose taxes are withheld by other parties and those who independently calculate and fulfill their tax obligations (Directorate General of Taxes, 2023).

Tax compliance needs to be understood more broadly than merely the submission of tax returns (SPT). It includes timely administrative fulfillment as well as the accuracy and completeness of tax calculation, payment, and reporting. Therefore, increases in taxpayer registration or SPT submission do not automatically demonstrate substantive compliance with the taxpayer's actual circumstances.

This condition makes Individual Taxpayer compliance an important subject of study, particularly among taxpayers who independently calculate and report their tax obligations. For this group, compliance decisions depend more heavily on their understanding of tax regulations, personal awareness, perceptions of tax sanctions, experiences with tax authority services, and assessments of the fairness of the tax system. These factors are consistent with the tax compliance approach, which views taxpayer behavior as the result of interactions between individual and institutional factors (Kirchler et al., 2008:210–225).

This study focuses on Individual Taxpayers registered at the Lamongan Primary Tax Office (KPP Pratama Lamongan). The location was selected based on the large and diverse population of Individual Taxpayers, including employees, business owners, and taxpayers engaged in independent economic activities. Based on the administrative data used in this study, the number of registered Individual Taxpayers as of August 2025 reached 312,781 taxpayers (KPP Pratama Lamongan, 2025). These characteristics provide an adequate context for examining variations in the factors that influence taxpayer compliance.

A large number of taxpayers needs to be accompanied by an adequate level of compliance. Under the self-assessment system, possession of a Taxpayer Identification Number (NPWP) represents an administrative stage, whereas compliance requires the continuous fulfillment of tax obligations. Therefore, this study does not focus solely on the formal aspect of NPWP ownership but also examines factors that may encourage taxpayers to consistently fulfill their tax obligations.

Tax knowledge is one of the factors frequently examined in studies of taxpayer compliance. Adequate knowledge helps taxpayers understand their rights and obligations, administrative procedures, tax calculation methods, and tax reporting requirements. However, empirical evidence remains mixed. Ardiasa et al. (2023:7–12), Karsam et al. (2022:466–479), and Setiawan and Yanti (2024:1088–1101) report positive effects of tax knowledge, whereas Nugrahani and Suryaningrum (2023:155–172), Marzidhan et al. (2023:3041–3056), and Novita et al. (2024:254–263) report insignificant effects in their respective contexts. These differences justify further testing across taxpayer groups and administrative settings.

Taxpayer awareness is also important because it reflects taxpayers' internal willingness to fulfill obligations without relying solely on external supervision. Karsam et al. (2022:466–479), Manurung and Ardillah (2024:52–64), and Setiawan and Yanti (2024:1088–1101) find that awareness supports taxpayer compliance. This suggests that voluntary compliance can develop when taxpayers recognize taxation as a responsibility and understand its public function.

In addition to individual factors, the quality of tax authority services may influence the ease with which taxpayers fulfill their obligations. Clear, responsive, and accessible services can reduce compliance costs and improve taxpayers' experience with the tax administration. Positive service effects are reported by Subhan and Ibrahim (2021:263–275), Seran and Priyastiwi (2023:1419–1440), and Manurung and Ardillah (2024:52–64).

Tax sanctions represent the enforcement dimension of the compliance system. Theoretically, sanctions raise the expected cost of non-compliance (Allingham & Sandmo, 1972:323–338), but empirical results are not uniform. Marzidhan et al. (2023:3041–3056) and Manurung and Ardillah (2024:52–64) report positive sanctions effects, whereas Nugroho (2021:2882–2894) and Novita et al. (2024:254–263) find no significant effect. These differences indicate that sanctions may operate differently depending on taxpayer characteristics, enforcement experience, and other compliance determinants.

Another factor examined in this study is the perceived fairness of the tax system. This variable reflects taxpayers' assessments of fairness, alignment between tax burdens and ability to pay, transparency, and the public benefits of tax revenues. Recent studies indicate that fairness can be associated with compliance directly or through trust-related mechanisms. Kumala et al. (2024:286–304) identify a role for perceived tax fairness in the relationship between tax knowledge and compliance, while Prastiwi et al. (2024:65–78) show that institutional trust strengthens compliance and is supported by transparent and fair administration. Setyadi and Efendi (2026) likewise position fairness and institutional trust as interconnected determinants of compliance.

The perceived fairness of the tax system is selected because most taxpayer compliance studies in Indonesia more frequently employ variables such as tax knowledge, taxpayer awareness, tax sanctions, tax socialization, or service quality. Consequently, taxpayers'

assessments of the fairness and benefit orientation of the tax system have been relatively less examined directly. This study incorporates this variable to broaden the explanation of taxpayer compliance rather than to replace the classical factors that have been widely used in previous studies.

Previous studies demonstrate inconsistent findings across the principal determinants of compliance. Tax knowledge is significant in Ardiasa et al. (2023:7–12) and Setiawan and Yanti (2024:1088–1101) but insignificant in Nugrahani and Suryaningrum (2023:155–172) and Novita et al. (2024:254–263). Sanctions are significant in Marzidhan et al. (2023:3041–3056) and Manurung and Ardillah (2024:52–64), yet insignificant in Nugroho (2021:2882–2894) and Novita et al. (2024:254–263). These differences suggest that taxpayer type, geographical context, administrative experience, and the combination of variables included in the model may shape empirical outcomes.

The research gap in this study lies in two aspects. First, previous studies have produced inconsistent findings regarding the effects of tax knowledge, taxpayer awareness, tax authority services, and tax sanctions. Second, this study incorporates the perceived fairness of the tax system as a variable that integrates aspects of fairness, transparency, ability to pay, and the benefits of taxation to society. Accordingly, the research model combines individual factors, enforcement, services, and institutional perceptions in a single empirical examination of Individual Taxpayers at the Lamongan Primary Tax Office.

Theoretically, this model is supported by the tax compliance approach and the Slippery Slope Framework. The latter emphasizes the interaction between the power of tax authorities and taxpayers' trust in generating enforced and voluntary compliance (Kirchler et al., 2008:210–225). Recent Indonesian evidence also highlights trust, fairness, service, knowledge, and awareness as relevant dimensions of compliance behavior (Prastiwi et al., 2024:65–78; Setiawan & Yanti, 2024:1088–1101; Setyadi & Efendi, 2026).

Based on the foregoing discussion, Individual Taxpayer compliance is not positioned as behavior caused by a single factor. Tax knowledge and taxpayer awareness represent internal taxpayer factors; tax sanctions represent enforcement power; tax authority services represent the quality of interaction with tax authorities; while the perceived fairness of the tax system represents taxpayers' assessments of the fairness and legitimacy of the tax system.

The examination of these five factors at the Lamongan Primary Tax Office is expected to provide more contextual empirical evidence. The findings may indicate which factors have a significant effect on compliance and which factors do not receive empirical support within the research sample, thereby enabling policy implications to be formulated in a more targeted manner.

On the basis of the identified problems, inconsistencies in previous research findings, and the development of the institutional variable, this study examines the effects of tax knowledge,

taxpayer awareness, tax sanctions, tax authority services, and perceived fairness of the tax system on Individual Taxpayer compliance at the Lamongan Primary Tax Office.

This study is expected to provide a theoretical contribution by empirically examining the integrated roles of internal and external factors within the tax compliance framework. Practically, the findings are expected to provide input for tax authorities in developing strategies to improve compliance that do not rely solely on enforcement but also consider taxpayers' understanding, service quality, trust, and perceptions of fairness.

Based on the foregoing discussion, this study is entitled **“Factors Influencing Taxpayer Compliance”**, with a research focus on Individual Taxpayers registered at the Lamongan Primary Tax Office.

RESEARCH METHOD

This study employs a quantitative approach with an associative research design to examine the effects of several independent variables on Individual Taxpayer Compliance (WPOP) through statistical analysis of questionnaire data. The research object consists of Individual Taxpayers registered at the Lamongan Primary Tax Office (KPP Pratama Lamongan), with a population of 312,781 taxpayers as of August 2025. A Slovin-based calculation with a 10% error tolerance was used only as a sample-size planning device, producing a minimum target of approximately 100 respondents. Respondents were then selected through purposive sampling based on the criteria that they possessed an active Taxpayer Identification Number (NPWP) and had fulfilled their tax obligations at least once. Because respondent selection was non-probability based, the results are interpreted for the study sample and are not claimed as probability-based estimates for the entire taxpayer population. Primary data were collected through a structured closed-ended questionnaire. Responses were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree, and analyzed using multiple linear regression. Questionnaires were distributed directly and online to respondents who met the established criteria.

Operational Definition and Measurement of Variables

All research variables were measured using a five-point Likert scale. Operational definitions were derived from the research instrument so that each construct could be measured consistently through observable indicators. The operational definitions and indicators are presented in Table 1.

Table 1. Operational Definition and Measurement of Variables

Variable	Operational Definition	Indicators	Scale
Tax Knowledge (PP)	Taxpayers' understanding of tax obligations and procedures.	PP1 Tax obligations; PP2 Tax calculation; PP3 Tax return filing	Likert 1–5
Taxpayer Awareness (KSWP)	Internal willingness to fulfill tax obligations voluntarily.	KSWP1 Function of taxes; KSWP2 Moral responsibility; KSWP3 Voluntary compliance	Likert 1–5
Tax Sanctions (SP)	Taxpayers' perceptions of the strictness, deterrent effect, and fairness of sanctions.	SP1 Strictness; SP2 Deterrent effect; SP3 Fairness of sanctions	Likert 1–5
Tax Authority Services (PF)	Taxpayers' perceptions of service assistance, clarity, and procedural convenience.	PF1 Officer friendliness; PF2 Clarity of information; PF3 Ease of procedures	Likert 1–5
Perceived Fairness of the Tax System (PKSP)	Assessment of fairness and the public-interest orientation of the tax system.	PKSP1 Fairness; PKSP2 Ability to pay; PKSP3 Transparency; PKSP4 Public benefits	Likert 1–5
Taxpayer Compliance (KWP)	Compliance with formal and material tax obligations.	KWP1 Timely tax return filing; KWP2 Payment according to regulations; KWP3 Accuracy and completeness of tax returns	Likert 1–5

Source: Processed from the research instrument, 2026.

Tax knowledge, taxpayer awareness, tax sanctions, tax authority services, and taxpayer compliance were each measured using three questionnaire indicators, while perceived fairness of the tax system was measured using four indicators. Composite scores were used in the regression analysis so that each variable represented the overall tendency of its respective construct rather than a single questionnaire item.

RESULT AND DISCUSSION

Descriptive Statistics

Table 2. Summary of Item-Level Descriptive Statistics

Variable	N	Minimum	Maximum	Mean Range	Std. Deviation Range
Tax Knowledge (PP)	100	3	5	4.51–4.59	0.570–0.611
Taxpayer Awareness (KSWP)	100	3	5	4.55–4.57	0.575–0.607
Tax Sanctions (SP)	100	3	5	4.51–4.56	0.556–0.628
Tax Authority Services (PF)	100	3	5	4.50–4.51	0.611–0.644
Perceived Fairness of the Tax System (PKSP)	100	3	5	4.49–4.56	0.576–0.628
Taxpayer Compliance (KWP)	100	3	5	4.54–4.57	0.555–0.574

Source: Primary data processed using SPSS, 2026.

At the item level, all constructs show high mean responses on the five-point scale, with relatively narrow standard-deviation ranges. The table summarizes the minimum, maximum, and ranges of item means and item standard deviations within each construct; it does not represent a separately computed composite mean. These descriptive results provide context for the subsequent instrument and regression analyses.

Research Instrument Quality Testing

Instrument Validity Test

Table 3. Results of the Research Instrument Validity Test

Variable	Indicator	r-count	Sig. (2-tailed)	Description
Tax Knowledge	PP1	0,905	<0,001	Valid
	PP2	0,932	<0,001	Valid
	PP3	0,804	<0,001	Valid
Taxpayer Awareness	KSWP1	0,738	<0,001	Valid
	KSWP2	0,860	<0,001	Valid
	KSWP3	0,719	<0,001	Valid
Tax Sanctions	SP1	0,631	<0,001	Valid
	SP2	0,828	<0,001	Valid
	SP3	0,809	<0,001	Valid
Tax Authority Services	PF1	0,693	<0,001	Valid
	PF2	0,875	<0,001	Valid
	PF3	0,783	<0,001	Valid
Perceived Fairness of the Tax System	PKSP1	0,588	<0,001	Valid
	PKSP2	0,718	<0,001	Valid
	PKSP3	0,786	<0,001	Valid
	PKSP4	0,697	<0,001	Valid
Taxpayer Compliance	KWP1	0,749	<0,001	Valid
	KWP2	0,859	<0,001	Valid
	KWP3	0,709	<0,001	Valid

Source: Primary data processed using SPSS, 2026

The validity test employed Pearson Product Moment item-total correlation by correlating each indicator score with the total score of its respective variable. An indicator was considered valid when its correlation coefficient was positive and its significance value (Sig.) was below 0.05 (Ghozali, 2021; Sugiyono, 2025).

Based on the validity test results presented in Table 3, all indicators for each research variable have positive correlation coefficients and significance values below 0.05. These results indicate that each questionnaire item has a strong and positive relationship with the total score of the variable being measured.

Instrument Reliability Test

The reliability test was conducted using Cronbach's Alpha. A variable was considered reliable when its Cronbach's Alpha value was at least 0.60 (Ghozali, 2021; Sugiyono, 2025). The test covered all research variables: tax knowledge, taxpayer awareness, tax sanctions, tax authority services, perceived fairness of the tax system, and taxpayer compliance.

Table 4. Results of the Research Instrument Reliability Test

Variable	Number of Items	Cronbach's Alpha	Description
Tax Knowledge (PP)	3	0.852	Highly Reliable
Taxpayer Awareness (KSWP)	3	0.662	Reliable
Tax Sanctions (SP)	3	0.625	Reliable
Tax Authority Services (PF)	3	0.684	Reliable
Perceived Fairness of the Tax System (PKSP)	4	0.645	Reliable
Taxpayer Compliance (KWP)	3	0.661	Reliable

Source: Primary data processed using SPSS, 2026

Based on Table 4, all research variables have Cronbach's Alpha values above the minimum threshold of 0.60. Tax knowledge has the highest Cronbach's Alpha value of 0.852, indicating a very good level of internal consistency. Other variables, including taxpayer awareness, tax sanctions, tax authority services, perceived fairness of the tax system, and taxpayer compliance, also demonstrate adequate reliability values. Therefore, all research instruments are considered reliable and suitable for use in subsequent analyses, namely the classical assumption tests and hypothesis testing.

Classical Assumption Tests

Normality Test

The normality test aims to determine whether the residual data in the regression model are normally distributed. In this study, normality was tested using the Kolmogorov–Smirnov test and the Shapiro–Wilk test, supported by a graphical analysis of the Normal Probability Plot.

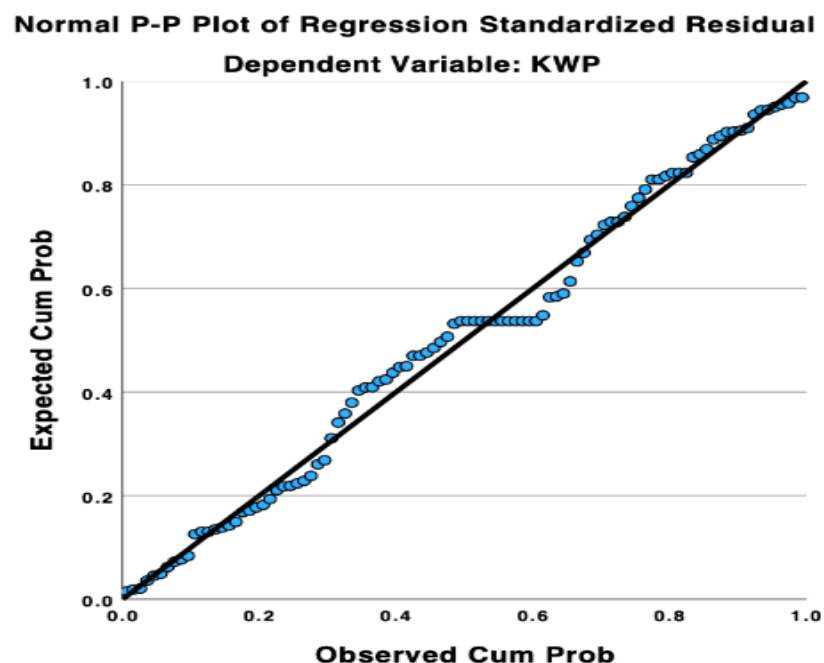
Table 5. Results of the Residual Normality Test

Test Method	Statistic	df	Sig.	Description
Kolmogorov–Smirnov	0.072	100	0.200	Normal
Shapiro–Wilk	0.982	100	0.174	Normal

Source: Primary data processed using SPSS, 2026

The testing criterion states that the data are normally distributed if the significance value (Sig.) is greater than 0.05 (Ghozali, 2021).

Based on Table 5, the significance value of the Kolmogorov–Smirnov test is 0.200, while that of the Shapiro–Wilk test is 0.174. Both values are greater than 0.05. Furthermore, the Normal P–P Plot shows that the residual points are distributed around the diagonal line and follow its direction. These results indicate that the residual data in the regression model are normally distributed.

**Figure 2.** Results of the Normality Test Using the P–P Plot

Multicollinearity Test

The multicollinearity test was conducted to determine whether there is a high correlation among the independent variables in the regression model. The test was performed by examining the Tolerance and Variance Inflation Factor (VIF) values. A regression model is considered free from multicollinearity if the Tolerance value is > 0.10 and the VIF value is < 10 (Ghozali, 2021).

Table 6. Results of the Multicollinearity Test

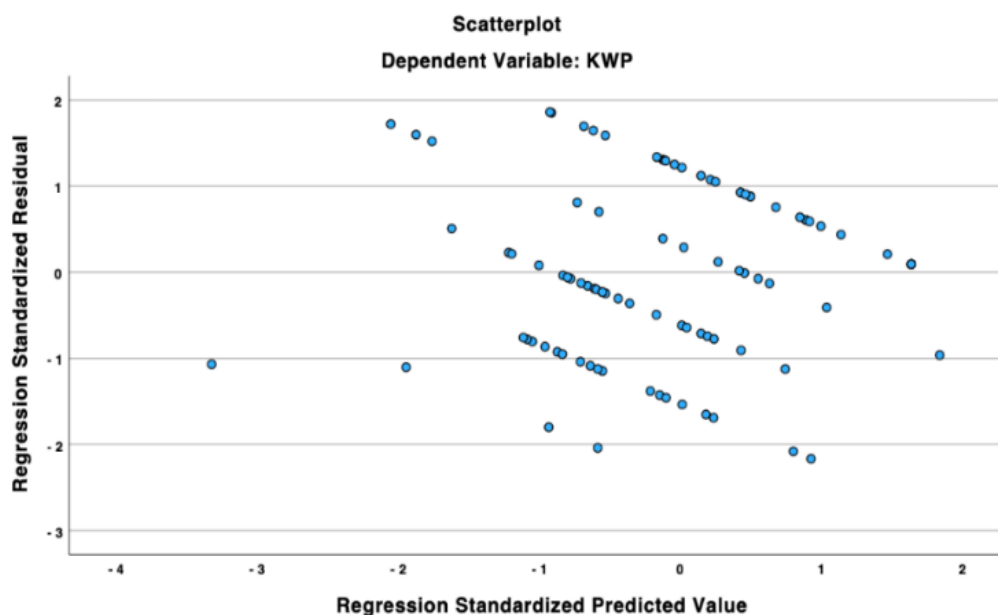
Independent Variable	Tolerance	VIF	Description
Tax Knowledge (PP)	0,782	1,278	No multicollinearity
Taxpayer Awareness (KSWP)	0,849	1,178	No multicollinearity
Tax Sanctions (SP)	0,852	1,173	No multicollinearity
Tax Authority Services (PF)	0,765	1,306	No multicollinearity
Perceived Fairness of the Tax System (PKSP)	0,672	1,489	No multicollinearity

Source: Primary data processed using SPSS, 2026

Based on Table 6, all independent variables have Tolerance values above 0.10 and VIF values below 10. Therefore, it can be concluded that the regression model does not experience multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there are differences in the residual variances across observations in the regression model. In this study, the heteroscedasticity test was conducted using a Scatterplot analysis by examining the distribution pattern between the ZPRED and ZRESID values.

**Figure 3.** Scatterplot of the Heteroscedasticity Test

Based on Figure 3, the distribution of the residual points does not appear to be completely random, as there is a tendency to form several diagonal lines or bands. This stepped pattern may be influenced by the use of composite scores derived from Likert-scale responses, which produce only a limited number of possible values. Nevertheless, the visual pattern still raises an indication of unequal residual variances. Therefore, the scatterplot is not used as the sole basis for concluding that the model is free from heteroscedasticity, and the results need to be confirmed using the Glejser test.

Glejser Test

In addition to the scatterplot analysis, the heteroscedasticity test in this study was further supported by the Glejser test. The Glejser test was conducted by regressing the absolute residual values (ABS_RES) against all independent variables.

Table 7. Results of the Glejser Test

Variable	B	Std. Error	t	Sig.
Constant	1,577	0,339	4,653	0
Tax Knowledge (PP)	0,022	0,044	0,515	0,608
Taxpayer Awareness (KSWP)	-0,062	0,048	-1,309	0,194
Tax Sanctions (SP)	-0,097	0,049	-1,981	0,050
Tax Authority Services (PF)	-0,085	0,047	-1,827	0,071
Perceived Fairness of the Tax System (PKSP)	-0,064	0,058	-1,108	0,271

Source: Primary data processed using SPSS, 2026.

The testing criterion states that a regression model does not experience heteroscedasticity if the significance value (Sig.) of each independent variable is greater than 0.05 (Ghozali, 2021).

Based on the results of the Glejser test, the significance values for each variable were 0.608 for PP, 0.194 for KSWP, 0.050 for SP, 0.071 for PF, and 0.271 for PKSP. The significance values for PP, KSWP, PF, and PKSP were greater than 0.05, indicating no evidence of heteroscedasticity. In contrast, the significance value for SP was exactly 0.050 and therefore cannot be directly classified as a value greater than 0.05.

As a solution to this indication, the inference of the regression coefficients was recalculated using heteroskedasticity-consistent standard errors of the HC3 type through Python on Google Colab with the statsmodels library. The HC3 correction does not change the regression coefficients but produces standard errors, t-values, significance values, and confidence intervals that are more robust to heteroscedasticity (Hayes & Cai, 2007). For the Tax Sanctions variable, the coefficient remained at $B = 0.178$, while the HC3 standard error was 0.102, $t = 1.735$, $p = 0.086$, and the 95% confidence interval = $[-0.026; 0.381]$. Since $p > 0.05$ and the confidence interval includes zero, the effect of SP is considered statistically insignificant at the 5% significance level. Accordingly, the HC3 results are used as the basis for the final statistical inference, while the conventional OLS results from SPSS are presented for comparison.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the effects of tax knowledge, taxpayer awareness, tax sanctions, tax authority services, and perceived fairness of the tax system on taxpayer compliance. In addition, this analysis aimed to test the research hypotheses formulated previously.

Multiple Linear Regression Equation

Based on the results of data processing using SPSS, the following multiple linear regression equation was obtained:

$$KWP = 0.507 + 0.187 PP + 0.365 KSWP + 0.178 SP + 0.229 PF - 0.067 PKSP$$

The equation indicates the direction and magnitude of the effect of each independent variable on taxpayer compliance.

Coefficient of Determination (R^2)

The coefficient of determination is used to determine the extent to which the independent variables are able to explain the variation in the dependent variable.

Table 8. Results of the Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,578	0,334	0,299	0,364

Source: Primary data processed using SPSS, 2026.

The model yielded R Square = 0.334 and Adjusted R Square = 0.299. Thus, the five independent variables explain 33.4% of the observed variation in taxpayer compliance in the sample, while the adjusted explanatory proportion is 29.9% after accounting for the number of predictors. The remaining variation is associated with factors outside the research model.

F-Test (Goodness of Fit Test)

The F-test evaluates whether the independent variables, taken together, provide a statistically significant explanation of variation in the dependent variable. In this study, it is treated as an overall model significance or goodness-of-fit test rather than as a separate research hypothesis.

Table 9. Results of the F-Test (Goodness of Fit Test)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6,240	5	1,248	9,430	<0,001
Residual	12,439	94	0,132		
Total	18,679	99			

Source: Primary data processed using SPSS, 2026.

Based on the OLS results presented in Table 9, the model produced $F = 9.430$ with $p < 0.001$. The robust covariance-based HC3 test also produced Wald $F(5, 94) = 9.369$ with $p < 0.001$. Both results indicate that the regression model is statistically significant overall, and this conclusion remains valid after the standard errors are corrected for heteroscedasticity.

The overall significance result shows that the set of independent variables jointly contributes to explaining variation in Individual Taxpayer Compliance at KPP Pratama Lamongan. This model-level test is distinct from the five directional research hypotheses, which concern the partial effect of each independent variable.

A statistically significant overall model does not imply that every independent variable is individually significant. The partial effects of Tax Knowledge, Taxpayer Awareness, Tax Sanctions, Tax Authority Services, and Perceived Fairness of the Tax System are therefore evaluated through the t-test and confirmed using HC3 inference below.

Hypothesis Testing (t-Test)

The t-test was used to test the research hypotheses regarding the effect of each independent variable on taxpayer compliance. The initial decision was based on the coefficients, t-values, and significance values generated by the OLS regression using SPSS. A hypothesis is supported if the coefficient has the expected direction in accordance with the hypothesis and the significance value is less than 0.05.

Table 10. Results of Hypothesis Testing (t-Test)

Variable	B	Std. Error	Beta	t	Sig.	Description
Tax Knowledge (PP)	0.187	0.080	0.224	2.357	0.021	Significant
Taxpayer Awareness (KSWP)	0.365	0.087	0.384	4.203	<0.001	Significant
Tax Sanctions (SP)	0.178	0.089	0.181	1.990	0.050	Borderline
Tax Authority Services (PF)	0.229	0.085	0.259	2.693	0.008	Significant
Perceived Fairness of the Tax System (PKSP)	-0.067	0.106	-0.065	-0.635	0.527	Not significant

Source: Primary data processed using SPSS, 2026.

Based on Table 10, Tax Knowledge, Taxpayer Awareness, and Tax Authority Services have positive coefficients with significance values below 0.05. Tax Sanctions has a positive coefficient and a Sig. value of 0.050, indicating that the OLS result is exactly at the significance threshold. Perceived Fairness of the Tax System has a negative coefficient with a Sig. value of 0.527 and is not statistically significant. Since the scatterplot and Glejser test indicate heteroscedasticity associated with Tax Sanctions, the final hypothesis decisions were confirmed using HC3 standard errors.

Heteroskedasticity-Consistent Standard Error Type HC3 Test

The HC3 test was conducted as a robustness test because the scatterplot and Glejser test indicated heteroscedasticity associated with the Tax Sanctions variable. The estimation was performed using Python through Google Colab with the statsmodels library. The HC3 estimator retains the OLS regression coefficients but recalculates the standard errors, t-values, p-values, and confidence intervals so that hypothesis decisions are more robust to unequal residual variances (Hayes & Cai, 2007).

Table 11. Results of the Heteroskedasticity-Consistent Standard Error Type HC3 Test

Variable	B	Std. Error HC3	t HC3	p HC3	CI 95%	Decision
Tax Knowledge (PP)	0.187	0.088	2.125	0.036	[0.012; 0.362]	H1 Supported
Taxpayer Awareness (KSWP)	0.365	0.099	3.672	<0.001	[0.168; 0.562]	H2 Supported
Tax Sanctions (SP)	0.178	0.102	1.735	0.086	[-0.026; 0.381]	H3 Not supported
Tax Authority Services (PF)	0.229	0.095	2.404	0.018	[0.040; 0.418]	H4 Supported
Perceived Fairness of the Tax System (PKSP)	-0.067	0.111	-0.605	0.547	[-0.288; 0.154]	H5 Not supported

Source: Primary data processed using Python (statsmodels), 2026.

Based on Table 11, PP, KSWP, and PF continue to have positive and significant effects after the HC3 correction. SP retains a positive coefficient of 0.178; however, its standard error increases to 0.102, with $t = 1.735$, $p = 0.086$, and a 95% confidence interval that includes zero. Therefore, H3 is not supported. PKSP is also not statistically significant, with $p = 0.547$; consequently, H5 is not supported.

Using the HC3 results in Table 11 as the basis for the final decision, H1, H2, and H4 are supported, whereas H3 and H5 are not supported at the 5% significance level. The HC3 correction does not change the direction or magnitude of the OLS coefficients, but it provides more reliable standard errors and inferential statistics when the residual variance is not constant.

Discussion of Hypothesis Results

Tax Knowledge and Taxpayer Compliance (H1)

The HC3 results show that Tax Knowledge has a positive and significant effect on taxpayer compliance ($B = 0.187$; $p = 0.036$), so H1 is supported. Taxpayers who better understand tax obligations, calculations, and reporting procedures tend to demonstrate higher compliance because knowledge can reduce administrative uncertainty and unintentional mistakes. The finding is consistent with Ardiasa et al. (2023:7–12), Karsam et al. (2022:466–479), and Setiawan and Yanti (2024:1088–1101), but differs from Nugrahani and Suryaningrum (2023:155–172) and Novita et al. (2024:254–263). The contrast reinforces the importance of taxpayer and administrative context.

Taxpayer Awareness and Taxpayer Compliance (H2)

Taxpayer Awareness has a positive and significant effect on taxpayer compliance ($B = 0.365$; $p < 0.001$), supporting H2. It also has the largest standardized coefficient in the

conventional OLS results ($Beta = 0.384$), indicating that awareness is the most dominant variable in this model. The finding suggests that internal willingness and recognition of tax obligations are central to voluntary compliance. This result is consistent with Karsam et al. (2022:466–479), Manurung and Ardillah (2024:52–64), and Setiawan and Yanti (2024:1088–1101).

Tax Sanctions and Taxpayer Compliance (H3)

Tax Sanctions retain a positive coefficient ($B = 0.178$), but the HC3 result is not statistically significant ($p = 0.086$); therefore, H3 is not supported. The conventional OLS result was exactly at the 0.050 threshold, but significance disappeared after correcting inference for the marginal indication of heteroscedasticity. Thus, the positive coefficient alone is insufficient evidence of a direct effect at the 5% level. The result is consistent with Nugroho (2021:2882–2894) and Novita et al. (2024:254–263), but differs from Marzidhan et al. (2023:3041–3056) and Manurung and Ardillah (2024:52–64), which report positive sanctions effects. This suggests that sanctions may not independently distinguish compliance once internal and service-related factors are considered simultaneously.

Tax Authority Services and Taxpayer Compliance (H4)

Tax Authority Services have a positive and significant effect on taxpayer compliance ($B = 0.229$; $p = 0.018$), supporting H4. Clear information, responsive assistance, and accessible procedures can reduce the practical burden of fulfilling tax obligations and improve taxpayers' interactions with the tax authority. This finding is consistent with Subhan and Ibrahim (2021:263–275), Seran and Priyastiwati (2023:1419–1440), and Manurung and Ardillah (2024:52–64). The result supports a compliance strategy that combines enforcement with administrative support that makes compliance easier to perform.

Perceived Fairness of the Tax System and Taxpayer Compliance (H5)

Perceived Fairness of the Tax System does not have a significant direct effect on taxpayer compliance ($B = -0.067$; $p = 0.547$), so H5 is not supported. The small negative coefficient is statistically indistinguishable from zero and should not be interpreted as evidence that greater fairness reduces compliance. Instead, perceived fairness did not explain additional differences in compliance after the other variables were controlled. This result is compatible with the possibility that fairness operates through broader attitudinal or trust-related mechanisms rather than as a direct effect. Kumala et al. (2024:286–304) identify perceived fairness as a mechanism linking tax knowledge and compliance, while Prastiwi et al. (2024:65–78) and Setyadi and Efendi (2026) emphasize institutional trust as a pathway through which fair and transparent administration can support compliance.

CONCLUSION AND SUGGESTIONS

This study concludes that tax knowledge, taxpayer awareness, and tax authority services have positive and significant effects on taxpayer compliance, while tax sanctions and perceived fairness of the tax system do not have significant direct effects after HC3 correction. Taxpayer awareness is the most dominant factor. The results indicate that compliance in this sample is more strongly associated with internal awareness, adequate knowledge, and service quality than with sanctions or fairness perceptions as direct predictors. The model yielded $R^2 = 0.334$ and adjusted $R^2 = 0.299$.

Practically, the Directorate General of Taxes should prioritize accessible tax education, initiatives that strengthen voluntary awareness, and clear, responsive taxpayer services. Sanctions remain necessary as an enforcement instrument but should complement, rather than replace, education and service-based strategies. Future research should examine trust, tax morale, digital-service experience, and other behavioral variables that may explain the remaining variation in compliance and may clarify indirect pathways from perceived fairness to compliance. Because purposive sampling was used, the findings should not be generalized as probability-based estimates for the entire population of Individual Taxpayers at KPP Pratama Lamongan.

ACKNOWLEDGEMENT

We would like to express our deepest gratitude to all parties who have contributed to this research. Our sincere appreciation goes to our colleagues for their valuable suggestions, support, and inspiration throughout the research process. We also extend our heartfelt thanks to all participants and respondents who generously dedicated their time to take part in this study. In addition, we would like to acknowledge the institutions and organizations that provided support and facilities for the implementation of this research. Every contribution and assistance provided has been highly meaningful to the smooth execution and successful completion of this study. We truly appreciate all the hard work and collaboration that have been established throughout this research.

REFERENCES

- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3–4), 323–338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Ardiasa, I. M., Sutapa, I. N., & Chandra Artha Aryasa, I. P. G. (2023). Pengaruh kesadaran wajib pajak, pengetahuan perpajakan, dan akuntabilitas pelayanan publik terhadap

- kepatuhan wajib pajak. *Jurnal Riset Akuntansi Warmadewa*, 4(2), 7–12. <https://doi.org/10.22225/jraw.4.2.8466.7-12>
- Direktorat Jenderal Pajak. (2023). *Laporan tahunan Direktorat Jenderal Pajak 2023*. Kementerian Keuangan Republik Indonesia. <https://www.pajak.go.id/id/laporan-tahunan-2023>
- Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 26* (Edisi ke-10). Badan Penerbit Universitas Diponegoro.
- Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior Research Methods*, 39(4), 709–722. <https://doi.org/10.3758/BF03192961>
- Karsam, K., Sasmita, D., Rahmadia, A., Dewi, S., & Solihin, S. (2022). Pengaruh kesadaran wajib pajak, pengetahuan perpajakan, pelayanan fiskus dan penerapan e-filling terhadap kepatuhan wajib pajak orang pribadi (Studi pada KPP DKI Jakarta dan Bekasi 2019–2021). *JURNAL ECONOMINA*, 1(3), 466–479. <https://doi.org/10.55681/economina.v1i3.104>
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29(2), 210–225. <https://doi.org/10.1016/j.joep.2007.05.004>
- KPP Pratama Lamongan. (2025). *Data administrasi wajib pajak orang pribadi terdaftar per Agustus 2025* [Data internal].
- Kumala, R. N., Oktaviono, N., Setiawan, H. F. R., Zulfiati, L., & Dahlifah, D. (2024). Peran tax knowledge dalam meningkatkan tax compliance: Bukti empiris pada UMKM di Bandung. *Reviu Akuntansi dan Bisnis Indonesia*, 8(3), 286–304. <https://doi.org/10.18196/rabin.v8i3.22604>
- Manurung, A. S., & Ardillah, K. (2024). The impact of taxpayer awareness, tax service quality, tax counseling, and tax sanctions on individual taxpayer compliance. *Journal of Accounting Auditing and Business*, 7(1), 52–64. <https://doi.org/10.24198/jaab.v7i1.51166>
- Marzidhan, W. L., Marundha, A., & Khasanah, U. (2023). Pengetahuan perpajakan, sanksi pajak, sosialisasi pajak dan kepatuhan wajib pajak dalam membayar Pajak Bumi dan Bangunan Perdesaan dan Perkotaan. *JURNAL ECONOMINA*, 2(10), 3041–3056. <https://doi.org/10.55681/economina.v2i10.932>
- Novita, R. D., Marundha, A., & Khasanah, U. (2024). Pengaruh modernisasi sistem administrasi perpajakan, pengetahuan perpajakan dan sanksi perpajakan terhadap kepatuhan wajib pajak UMKM di Kota Jakarta Timur. *JURNAL ECONOMINA*, 3(2), 254–263. <https://doi.org/10.55681/economina.v3i2.1197>
- Nugrahani, R., & Suryaningrum, S. (2023). Pengaruh kesadaran, pengetahuan perpajakan, pelayanan fiskus, dan sanksi pajak terhadap kepatuhan wajib pajak orang pribadi di KPP

- Pratama Sleman. *Kompartemen: Jurnal Ilmiah Akuntansi*, 21(1), 155–172. <https://doi.org/10.30595/kompartemen.v21i1.16736>
- Nugroho, W. C. (2021). Moral pajak, sanksi pajak, penerapan e-filling dan kepatuhan pajak. *E-Jurnal Akuntansi*, 31(11), 2882–2894. <https://doi.org/10.24843/EJA.2021.v31i11.p16>
- Prastiwi, D., Endrasti, N. R., & Abdiah, Y. K. (2024). Trust and tax compliance in Indonesia. *Jurnal ASET (Akuntansi Riset)*, 16(1), 65–78. <https://doi.org/10.17509/jaset.v16i1.60788>
- Republik Indonesia. (2023). *Undang-Undang Republik Indonesia Nomor 6 Tahun 2023 tentang Penetapan Peraturan Pemerintah Pengganti Undang-Undang Nomor 2 Tahun 2022 tentang Cipta Kerja Menjadi Undang-Undang*.
- Seran, A. H., & Priyastiwi, P. (2023). Pengaruh kesadaran wajib pajak, sosialisasi perpajakan, pengetahuan perpajakan dan kualitas pelayanan terhadap kepatuhan wajib pajak. *Jurnal Riset Akuntansi dan Bisnis Indonesia*, 3(4), 1419–1440. <https://doi.org/10.32477/jrabi.v3i4.861>
- Setiawan, J., & Yanti, L. D. (2024). Kontribusi pengetahuan, kesadaran, dan digitalisasi pajak terhadap kepatuhan wajib pajak. *eCo-Buss*, 7(2), 1088–1101. <https://doi.org/10.32877/eb.v7i2.1698>
- Setyadi, M. G., & Efendi, T. F. (2026). Integrating tax fairness, government marketing strategy, and institutional trust: A moderated mediation model of tax compliance in Indonesia. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 9(4). <https://doi.org/10.29040/ijebar.v9i4.19495>
- Subhan, & Ibrahim, F. N. (2021). Pengaruh pengetahuan wajib pajak, kesadaran wajib pajak dan pelayanan fiskus terhadap kepatuhan wajib pajak orang pribadi. *YUME: Journal of Management*, 4(1), 263–275. <https://doi.org/10.37531/yum.v4i1.1017>
- Sugiyono. (2025). *Metode penelitian kuantitatif, kualitatif, dan R&D* (Edisi ke-2, cetakan ke-7). Alfabeta.