

The Effects of Modernization of System Tax Administration, Tax-Socialization, Trust in Tax-Authority on Tax Compliance Mediated by Taxpayer Awareness

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ABSTRACT

This study uses taxpayer awareness as an intervening variable (Taxpayer Survey in North Jakarta) to investigate the effects of Modernization of tax system, socialization of tax, and trust in tax authorities on taxpayer compliance. The research data provides from questionnaire survey with 102 respondents. The data is processed using the SmartPLS-. And the result show below: (1) Taxpayer awareness is unaffected by the modernization of tax system; (2) Tax socialization is unaffected by the modernization of tax system; (3) Taxpayer awareness is influenced by the level of trust in the tax authorities; (4) Taxpayer awareness affects taxpayer compliance; and (5) Taxpayer compliance is unaffected by the modernization of tax system. (6) Taxpayer compliance is unaffected by tax socialization. (7) Taxpayer compliance is influenced by the level of confidence. (8) Taxpayer compliance is unaffected by the upgrading of the tax administration system facilitated by Taxpayer Awareness. (9) Taxpayer compliance is unaffected by tax socialization, which is mediated by taxpayer knowledge. (10) Taxpayer awareness has a significant impact as a mediator between taxpayer compliance and the level of trust in the tax authorities.

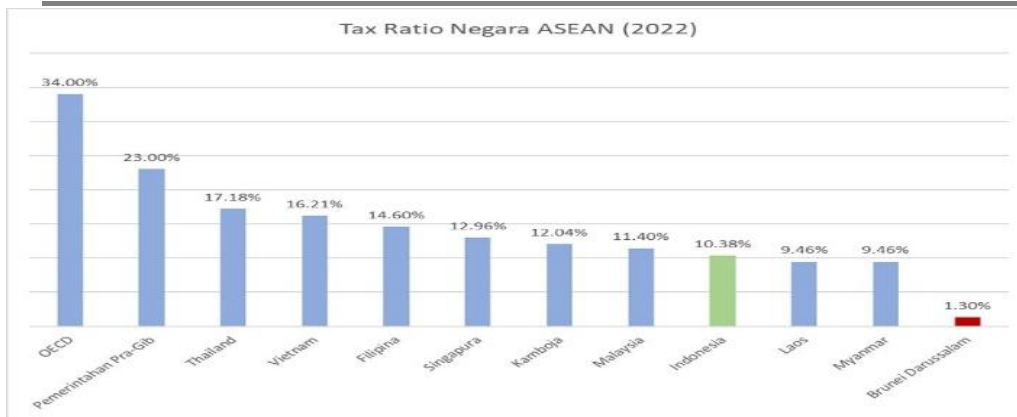
Keywords: Perception of Modernization of tax system, Perception of Socialization of tax, Trust to tax authorities, Taxpayer awareness, Taxpayer compliance

INTRODUCTION

Taxpayers play a crucial role in Indonesia's development by contributing by complying with their tax obligations. However, taxpayers are often reluctant to pay taxes to the government. This is an interesting topic to study and investigate, understanding the reasons why taxpayers choose to be non-compliant with their tax obligations.

There is an urgent need for research on taxpayer compliance with regard to meeting their tax obligations. Indonesian taxpayers typically have low levels of tax compliance, according to a number of factors. The tax ratio is one measure. Low tax compliance is indicated by a low tax ratio in a nation.

The following graph compares the tax ratios of ASEAN and European countries in 2022. The graph shows that Indonesia's tax ratio remains low among ASEAN countries, at 10.38%, slightly above Laos and below Singapore, Thailand, Vietnam, and Malaysia. This is especially true compared to the tax ratio of OECD countries, which has reached 34%.



source: <https://mejaredaksi.co.id/pajak-digitalisasi-dan-edukasi-upaya-mengejar-target-tax-ratio/>

Figure 1. Tax ratio in ASEAN

Other data, based on information provided by the tax authorities during 2019–2023, also shows the taxpayer compliance ratio. The total number of Income Tax (PPH) returns received divided by the total number of taxpayers registered for the tax year yields is to measure tax compliance ratio. According to the Ministry of Finance data below, the compliance ratio for annual tax returns has increased steadily between 2019 and 2023, increasing by at least 13.9% over the past five years. The following table displays the reporting data:

Table 1. Compliance Ratio of Income Tax Return Submission in 2023

Rasio Kepatuhan Penyampaian SPT Tahunan PPh, 2019—2023					
Uraian	2023	2022	2021	2020	2019
Wajib Pajak Terdaftar Wajib SPT	19.182.071	19.075.197	19.002.585	19.006.794	18.334.683
a. Badan	1.665.826	1.567.298	1.652.251	1.482.500	1.472.217
b. Orang Pribadi Karyawan	13.925.788	13.842.704	13.279.644	14.172.999	13.819.918
c. Orang Pribadi Nonkaryawan	3.590.457	3.665.195	4.070.690	3.351.295	3.042.548
SPT Tahunan PPh	16.682.564	16.556.759	15.976.387	14.755.255	13.394.502
a. Badan	1.162.453	1.052.482	1.012.302	891.877	963.814
b. Orang Pribadi Karyawan	13.099.917	12.971.323	13.110.613	12.105.833	10.120.426
c. Orang Pribadi Nonkaryawan	2.420.194	2.532.954	1.853.472	1.757.545	2.310.262
Rasio Kepatuhan	86,97%	86,80%	84,07%	77,63%	73,06%
a. Badan	69,78%	67,15%	61,27%	60,16%	65,47%
b. Orang Pribadi Karyawan	94,07%	93,71%	98,73%	85,41%	73,23%
c. Orang Pribadi Nonkaryawan	67,41%	69,11%	45,53%	52,44%	75,93%

Source: DGT annual report 2023

The recently released 2023 DGT Annual Report states that the compliance ratio increased to 73.06% in 2019. When the COVID-19 pandemic hit in 2020, the compliance rate increased to 77.63%. Furthermore, the SPT submission ratio increased to 84.07% in 2021, 86.80% in 2022, and 86.97% in 2023, continuing the upward trend. While this percentage represents a positive improvement, it also suggests that some taxpayers are still failing to fulfill their obligations.

Table 2. Compliance Ratio in DGT North Jakarta of Submission of Income Tax Returns 2019 – 2024.

Rasio Kepatuhan Penyampaian SPT PPh Kanwil DJP Jakarta Utara, 2019-2024						
Uraian	2019	2020	2021	2022	2023	2024
Wajib pajak terdaftar Wajib SPT:						
a. Badan	31.573	32.500	36.075	35.998	41.513	48.536
b. Orang Pribadi Karyawan dan Non Karyawan	315.137	256.146	254.513	280.251	255.301	272.691
WP yang sudah melaporkan SPT Tahunan:						
a. Badan	25.367	25.467	27.734	29.127	33.590	32.785
b. Orang Pribadi Karyawan dan Non Karyawan	217.652	230.374	227.946	239.295	235.173	220.377
Ratio Kepatuhan Penyampaian SPT						
a. Badan	80,34%	78,36%	76,88%	80,91%	80,91%	67,55%
b. Orang Pribadi Karyawan dan Non Karyawan	69,07%	89,94%	89,56%	85,39%	92,12%	80,82%

Source : DGT Annual report North Jakarta Regional (2024)

The North Jakarta Regional Office of the Directorate General of Taxation's annual tax return compliance ratio for the 2019–2024 period is displayed in Table 1.2 above. Compliance dynamics are evident for both corporate taxpayers and non-employee taxpayers (WPOP). For corporate taxpayers, the number of registered taxpayers continues to increase from 31,573 in 2019 to 48,536 in 2024. However, the compliance ratio for corporate tax returns shows a fluctuating trend. In 2019, compliance was recorded at 80.34%, slightly decreasing in 2020 (78.36%) and 2021 (76.88%), then increasing again in 2022 and 2023 to 80.91%, respectively. However, in 2024 there was a sharp decline to 67.55%, although the number of corporate taxpayers reporting tax returns remained relatively high (32,785 taxpayers). This indicates that despite the expanding corporate taxpayer base, the compliance rate remains relatively unstable. Meanwhile, for registered taxpayers (WPOP), the number of registered taxpayers decreased significantly from 315,137 in 2019 to 254,513 in 2021, before increasing again to 272,691 in 2024. The compliance ratio for individual taxpayers showed a more positive trend than for corporate taxpayers. In 2019, compliance was recorded at 69.07%, then increased rapidly in 2020 and 2021 to 89.94% and 89.56%, respectively. Although there was a slight decline in 2022 (85.39%), compliance increased again in 2023, reaching 92.12%, the highest figure during the observation period. In 2024, the compliance rate decreased to 80.82%, but remained at a relatively high level compared to the beginning of the period.

Until this time, tax compliance remains a challenging issue for tax authorities in all countries, as they must ensure taxpayers comply with various tax regulations and obligations. In Indonesia, as a consequence of the self-assessment tax reporting system, tax authorities strive to fulfill their duties and functions to improve tax compliance.

System modernization is crucial in today's digital era to ensure Indonesia's tax system remains up-to-date and adapts to substantial changes in how we communicate, transact, and interact through digital media, digital footprints, digital communities, and transactions. Nowadays, digitization is commonplace. It is anticipated that this tax system modernization will raise taxpayer knowledge and promote compliance. It is anticipated that one strategy to promote taxpayer awareness and compliance will be to comprehend the advantages of information and communication technology in the implementation of electronic systems. By implementing e-Filing, the Directorate General of Taxation has taken positive actions to increase taxpayer compliance. Because of the e-Filing application, taxpayers can more easily meet their tax obligations (Pebri, 2020). Through the use of the e-filing system, the Directorate General of Taxation has taken proactive measures to increase compliance. E-filing software facilitate the process of meeting tax responsibilities (Nugroho, 2021). The adoption of digital tax technology significantly increases taxpayer compliance, per research by Muturi (2015). It is advised that tax authorities increase small taxpayers' access to and education about technology.

Online NPWP registration is one of the many modifications brought about by the tax authorities' modernization of the tax system. Taxpayers can pay and submit their taxes at any time as long as they have internet access thanks to additional features like eSPT, epayment, and e-filing. The Core Tax Application System (SIAP), often known as CORETAX, is the newest technology and has been in use since January 1, 2025. Through a more open and accountable system, Coretax is anticipated to enhance tax compliance and streamline the tax administration process (Dimetheo et al., 2023). By removing the need to visit a registered tax office (KPP), this system modernization attempts to make it simpler for taxpayers to complete their tax obligations. There are worries that Coretax's presence in Indonesia will not be as effective as it could be because of the many challenges it has faced since its launch in early January 2025, including the persistence of blank spots brought on by inadequate internet infrastructure and a lack of public digital literacy (Dimetheo et al., 2023). Taxpayer compliance may be hampered by an excessively complicated tax structure (Taing & Chang, 2021).

There are obstacles in using the Coretax tax administration system, including inadequate DGT server capacity and limited internet access in some regions of Indonesia. These obstacles are particularly evident when taxpayers conduct transactions near the tax return (SPT) submission deadline. The DGT server is unable to process requests because most taxpayers access e-filing near the deadline. As a result, this feature becomes difficult to use, causing delays in the tax reporting process and potentially resulting in fines if the deadline is exceeded (Pratama & Urumsah, 2024).

The DGT's endeavor to "implement tax procedures or regulations that are in operation or will soon be in effect" is known as tax socialization (Pujilestari et al., 2021). Tax socialization can be considered effective if the agenda receives a positive response and improves taxpayers' understanding of all tax matters. Tax socialization is necessary so that taxpayers understand the importance of taxes as a contribution to national development (Arif et al., 2023). The tax authorities have attempted to provide outreach, both through face-to-face meetings at tax service offices and through the official online platform "www.pajak.go.id". Despite the ongoing outreach, taxpayers still face numerous complaints and obstacles, as the Coretax system they trialed differed significantly from the one launched on January 1, 2025. (<https://www.cnbcindonesia.com/news/20250114071439-4-602923/keluhansoalcoretaxterusmunculsistemaksiap-sosialisasikacau>).

Public perception of transparent and accountable tax management, which aims to ensure public welfare according to relevant standards and utilizes tax revenues to fund regular state expenditures, is known as trust in the tax authorities (Kristanti & Subardjo, 2021). If individuals have a positive view of the government, they are more likely to contribute their funds (Faizal et al., 2017). If there are tangible benefits from programs funded by tax dollars, the public will be more motivated to pay their taxes. Previous research has shown that taxpayer compliance can increase due to trust in the government. However, a number of corruption cases and reprehensible actions by certain DGT employees have further tarnished this trust.

For example, in the case of HNV, who served as Head of the Jakarta Special Tax Office for the 2015-2018 period and Head of the Banten Province Tax Office for the 2011 period, he was named a suspect in an alleged corruption case involving gratification. He is suspected of accepting sponsorship bribes amounting to Rp804 million, which were related to his position and contrary to his duties or obligations for the 2016-2017 period. The sources of the bribes and gratifications came from companies and individuals who were taxpayers at the Tax Office he led. (www.kpk.go.id/id/ruanginformasi/berita/kpk-tetapkan-tersangka-gratifikasi-di-DJP). In another case, for example, the Prosecutor in the first indictment later claimed in the Kompas newspaper (August 31, 2023) that Rafael Alun and his wife, EMT, received gratifications amounting to Rp16.6 billion. Between 2002 and 2013, the funds were used to manage the taxes of several companies. The gratuities came from four construction companies and a tax consultant (www.kompas.id/2023/korupsi-di-DGT-seperti-badai-yang-tidak-ada-habisnya). According to Mendoza et al. (2017) and the findings of Batrancea et al. (2019), These incidents have the potential to decrease voluntary compliance by fostering feelings of mistrust and injustice toward the tax authorities.

Tax awareness includes an understanding of the significance of paying taxes for public services, infrastructure, and economic development. High tax awareness individuals are aware of their tax rights and responsibilities and show willingness to voluntarily comply (Utari et al., 2020). Good tax compliance, such as timely tax payments and reporting, is encouraged by tax awareness (Al-Taffi et al., 2020). Recognizing the important role of taxes requires understanding the consequences and legal repercussions that can result from carelessness and tax law infractions. Tax outreach must highlight the penalties or dangers associated with negligent or late tax reporting in order to increase tax compliance (Neve et al., 2021). Fostering a strong tax awareness attitude can help build a strong and long-lasting tax compliance culture (Pratiwi & Sinaga, 2023).

Contradictory outcomes have been found in a number of earlier research on the influence of tax system reform, tax outreach campaigns, and the the degree of trust in tax authorities on taxpayer compliance. For instance, studies by Firli & Efriyenti (2021), Wijaya (2021), Rokib (2019), and Muturi (2015) discovered that tax system reform improved taxpayer compliance. Nonetheless, studies conducted by Damayanti & Amah (2018) and Pernamasari & Rahmawati (2021) produced contradictory findings. Similar conclusions may be drawn about the variables of trust and socialization, which in some studies had a major impact but not in others. According to studies by Zaikin et al. (2023) and Prena & Putuhena (2022), taxpayer compliance is greatly impacted by tax socialization. However, Yulia et al. (2020) and Devi & Purba (2020) found no evidence of a tax socializing effect on taxpayer compliance. Additionally, there was no statistically significant correlation between taxpayer compliance and faith in the tax authority, according to a study by Taing & Chang (2021). According to research by Alfarisi & Mahpudin (2020), taxpayer compliance was significantly and favorably impacted by taxpayer knowledge. On the other hand, Herviana & Halimatusadiah (2022) and Atarwaman (2020) discovered no discernible and favorable impact of taxpayer awareness on taxpayer compliance.

The idea of mediating variables that have not been adequately taken into consideration in prior research models is raised by this discrepancy in earlier findings. However, the emergence of digital systems like Coretax, which went into effect in early 2025, creates fresh chances to investigate how system modernization affects public tax behavior. Research explicitly analyzing the efficacy of this new digital system in the context of tax compliance is still few, nevertheless, especially when it comes to taxpayers in urban regions with diverse socioeconomic features and digital access, such as North Jakarta.

Furthermore, taxpayer awareness is seen as a crucial psychological factor that acts as a mediator in bridging the relationship between government policies (modernization, socialization, and trust) and tax compliance levels. However, the role of taxpayer awareness as a mediating variable has not been widely addressed in the context of digital tax reform. Therefore, this study is important and urgent, as it not only fills the gap in the literature on the relationship between variables using a mediation approach but also provides a preliminary evaluation of the implementation of the Coretax system from a taxpayer behavioral perspective.

So, based on the background description above, and based on the references found, the author was moved to find out more about the influence of modernization of tax system, tax socialization and the level of taxpayer trust in the Tax Authority on Tax Compliance mediated by taxpayer awareness (taxpayer survey in North Jakarta).

Problem Identification

1. Is taxpayer awareness influenced by modernization of tax system, tax socialization, and the level of trust in the tax authorities?
2. Is tax compliance influenced by taxpayer awareness, modernization of tax system, tax socialization, and taxpayer trust in the tax authorities?
3. How does taxpayer awareness mediate the effects of modernization of tax system, tax socialization, and taxpayer trust in the tax authorities on tax compliance?

RESEARCH METHODS

This research uses a quantitative and causal approach. Causality research focuses on cause-and-effect relationships (Sugiyono, 2021). It aims to determine the relationship between the dependent variable (the affected variable) and the independent variable (the influencing variable). The affected variable (Y) is tax compliance, and the four influencing variables are: Tax Administration System Modernization (X1), Tax Socialization (X2), Taxpayer Trust (X3), and Taxpayer Awareness (Z).

Data analysis used SmartPLS-4, with a sample of 102 respondents drawn from a total of 321,227 taxpayers registered at the North Jakarta Tax Office.

RESULTS AND DISCUSSION

Descriptive Analysis of Respondents' Responses

1. Taxpayer Compliance Variable (Y)

Overall, variable Y received an average score of 424 and a scale average of 4.16, meaning that the average respondent answered "Agree" to the Taxpayer Compliance variable.

2. Taxpayer Awareness Variable (Z)

Overall, variable Z received an average score of 432.3 and a scale average of 4.24, meaning that most respondents strongly agreed with each indicator of the Taxpayer Awareness variable.

3. Tax Administration System Modernization Variable (X1)

Overall, variable X1 received an average score of 412 and a scale average of 4.04, meaning that the average respondent answered "Agree" to the Tax Administration System Modernization variable.

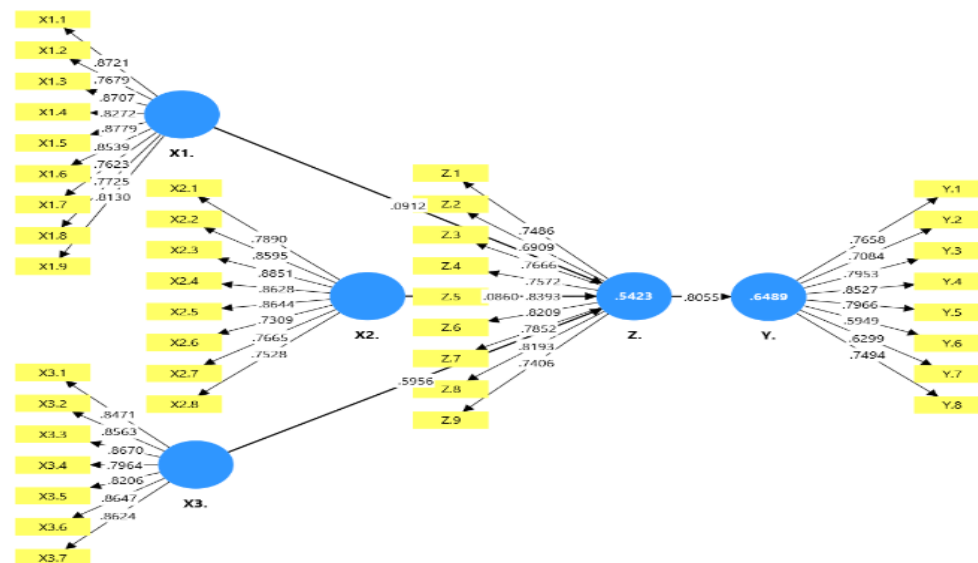
4. Tax Socialization Variable (X2)

Overall, variable X2 received an average score of 421.8 and a scale mean of 4.13, meaning that the average respondent answered "Agree" to the Tax Socialization variable.

5. Taxpayer Trust Variable (X3)

Overall, variable X3 received an average score of 401 and a scale mean of 3.93, meaning that the average respondent answered "Agree" to the Taxpayer Trust in Tax Authorities variable.

Outer Model Test



Source: processed from primary data 2025

Figure 2. Measurement Model Test-PLS Algorithm

Based on Figure 2 above, all variables X1, X2, and X3 have loading factors greater than 0.7, so the indicators are declared valid. However, variables Z and Y have indicators Z2, Y5, and Y6 with loading factors below 0.7, so these indicators are declared invalid and excluded from the research data processing.

Average Variance Extracted (AVE)

Discriminant validity can also be ensured by examining the average variance extracted (AVE) value for each indicator, in addition to the cross-loading value. For a good model, a value above 0.5 is required (Savitri et al., 2021).

Table 3. Average Variance Extrated (AVE)

Variabel	Average-Variance-Extrated(AVE)
(X1) Tax Administration System Modernization	0,6761
(X2) Tax Socialization	0,6655
(X3) Taxpayer Trust in tax authority	0,7144

(Z) Taxpayer Awareness	0,6266
(Y) Taxpayer Compliance	0,6282

Source: processed from primary data 2025

The variables of Tax Administration System Modernization (X1), Tax Socialization (X2), Taxpayer Trust (X3), Taxpayer Awareness (Z), and Taxpayer Compliance (Y) have an AVE value of >0.5 . This means that all exogenous and endogenous variables have good discriminant validity.

Discriminant Validity

Table 4. Cross Loading

Cross loadings

	X1.	X2.	X3.	Y.	Z.
X1.1	.8721	.6139	.6023	.5397	.5415
X1.2	.7679	.5525	.6044	.3978	.4147
X1.3	.8707	.6958	.7050	.5556	.5666
X1.4	.8272	.6060	.5495	.4221	.4747
X1.5	.8779	.7426	.6455	.5154	.5207
X1.6	.8539	.7067	.6157	.5112	.5356
X1.7	.7623	.7655	.5773	.4183	.4778
X1.8	.7725	.6317	.5766	.3941	.4055
X1.9	.8130	.6914	.6150	.4471	.4419
X2.1	.7080	.7890	.7626	.5162	.4702
X2.2	.7123	.8595	.7447	.5121	.5050
X2.3	.7632	.8851	.6773	.5106	.5177
X2.4	.6918	.8628	.6628	.5363	.5774
X2.5	.6642	.8644	.6727	.5408	.5378
X2.6	.5931	.7509	.4986	.4193	.4812
X2.7	.5713	.7665	.5206	.3893	.4572
X2.8	.5684	.7528	.5467	.4849	.5144
X3.1	.5631	.6468	.8471	.5338	.5541
X3.2	.6317	.6503	.8563	.5967	.6086
X3.3	.6127	.6771	.8670	.4967	.5808
X3.4	.5796	.6688	.7964	.5113	.6207
X3.5	.6301	.6590	.8206	.5437	.6233
X3.6	.6716	.6745	.8647	.6433	.6466
X3.7	.6124	.6418	.8624	.5770	.6653
Y.1	.3116	.3196	.4598	.7658	.5967
Y.2	.3476	.3368	.4659	.7084	.5378
Y.3	.4564	.4883	.5073	.7953	.6461
Y.4	.4089	.5101	.4964	.8527	.6901
Y.5	.5173	.4698	.4836	.7966	.6567
Y.6	.3027	.4106	.4426	.5949	.4130
Y.7	.4363	.4817	.3916	.6299	.5537
Y.8	.5678	.5399	.6716	.7494	.6287
Z.1	.5065	.5914	.7115	.6067	.7486
Z.2	.4235	.5083	.5748	.5951	.6909
Z.3	.3636	.4184	.5370	.5891	.7666
Z.4	.5288	.5784	.6754	.6482	.7572
Z.5	.4133	.4613	.4701	.6796	.8393
Z.6	.4578	.4231	.5158	.5914	.8209
Z.7	.4945	.4573	.5392	.6252	.7852
Z.8	.4760	.4789	.5240	.6435	.8193
Z.9	.4579	.4009	.4933	.6258	.7406

Source: processed from primary data 2025

Table 4 above is the Cross Loading table. The cross loading table values indicate that the relationship between an indicator and its construct is higher than its relationship with other indicators. This means that each indicator represents its own construct more strongly than other constructs.

Composite Reliability

Tabel 5.Composite Reliability (CR)

	Composite.Reliability
(X1) Tax Administration System Modernization	0,9434
(X2) Tax Socialization	0,9406
(X3) Taxpayer Trust in tax authority	0,9459
(Z) Taxpayer Awareness	0,9305
(Y) Taxpayer Compliance	0,9100

Source: processed from primary data 2025

Table 5 above shows the results of the Composite Reliability test. The CR value indicates whether the indicators within a variable are truly consistent and reliable in measuring that variable. The CR results indicate that all dependent and independent variables have values >0.7 , indicating good reliability for each variable.

Cronbach's-Alpha Test

Table 6. Cronbach's-Alpha

	<i>Cronbach's-Alpha</i>
(X1) Tax Administration System Modernization	0,9312
(X2) Tax Socialization	0,9273
(X3) Taxpayer Trust in tax authority	0,9333
(Z) Taxpayer Awareness	0,9142
(Y) Taxpayer Compliance	0,8812

Source: processed from primary data 2025

Based on the Cronbach's Alpha test in Table 6 above, each variable has a Cronbach's Alpha value > 0.7 , indicating that the variables in this study have a high level of reliability because they all meet the criteria.

Structural Model Test (Inner Model Test)

R-Square Determination Coefficient.

Tabel 6. R-square

	<i>R-square</i>	<i>R-square Adjusted</i>
(Z) Taxpayer Awareness	0,613	0,609
(Y) Taxpayer Compliance	0,517	0,502

Source: processed from primary data 2025

The inner model test evaluates the quality and strength of the relationship between latent variables in a structural model. The R^2 measures how much variation in the endogenous variable (Y) can be explained by the exogenous variables (X). Table 4.6 above shows the results of the R^2 test for each endogenous latent variable. The R^2 value for the Taxpayer Awareness variable is 0.517, while the Taxpayer Compliance variable is 0.613. Because the R^2 values are in the range of 0.5-0.7, this model can be considered moderate (Savitri et al., 2021).

Based on this, the variables Tax Modernization, Tax Socialization, and Taxpayer Trust explain 51.7% of the Taxpayer Awareness variable (moderate). Meanwhile, the variables Tax Modernization, Tax Socialization, and Taxpayer Trust explain 61.3% of the Taxpayer Compliance variable (moderate).

Effect size f^2 (*f-square*)

The F-Square value (f^2) is used to determine the influence of the predictor variable (X) on the dependent variable (Y).

Tabel 7. F-square

	f-square
X1 Tax Administration System Modernization -> Z. Taxpayer Awareness	,0026
X2. Tax Socialization -> Z. Taxpayer Awareness	,0000
X3. Taxpayer Trust in tax authority -> Z. Taxpayer Awareness	,3751
Z. Taxpayer Awareness -> Y. Taxpayer Compliance	3,1561

Source: processed from primary data 2025

Based on the research results, the f-square of the modernization of tax system variable (0.0026) has a weak effect on taxpayer awareness, Tax socialization (0.0000) has a weak effect on taxpayer awareness, the level of trust in tax authorities (0.3751) has a strong effect on taxpayer awareness and taxpayer awareness (3.1561) has a very strong effect on taxpayer compliance in the structural model.

Q² Value Analysis

The Q² (Q-Square) value is a measure of the model's predictive relevance or predictive ability for endogenous variables. To calculate Q², the following formula can be used:

$$\begin{aligned}
 Q\text{-square} &= 1 - [(1 - R^2_1) \times (1 - R^2_2)] \\
 &= 1 - [(1 - 0,517) \times (1 - 0,613)] \\
 &= 1 - (0,483 \times 0,387) \\
 &= 1 - 0,186921 \\
 &= 0,813079
 \end{aligned}$$

Savitri et al. (2021) explains that the effectiveness of a model and its parameter estimates in producing observed results can be evaluated using the Q² value. If a model's Q² value is greater than 0 (zero), the model is considered acceptable; if it is less than 0 (zero), the model is considered to have less predictive relevance. The research model's predictions are considered significant because the endogenous construct or latent variable has a Q² value greater than 0 (zero). The Q² value is 0.813079, meaning the model is able to explain 81.3% of the data variation, thus having strong predictive relevance.

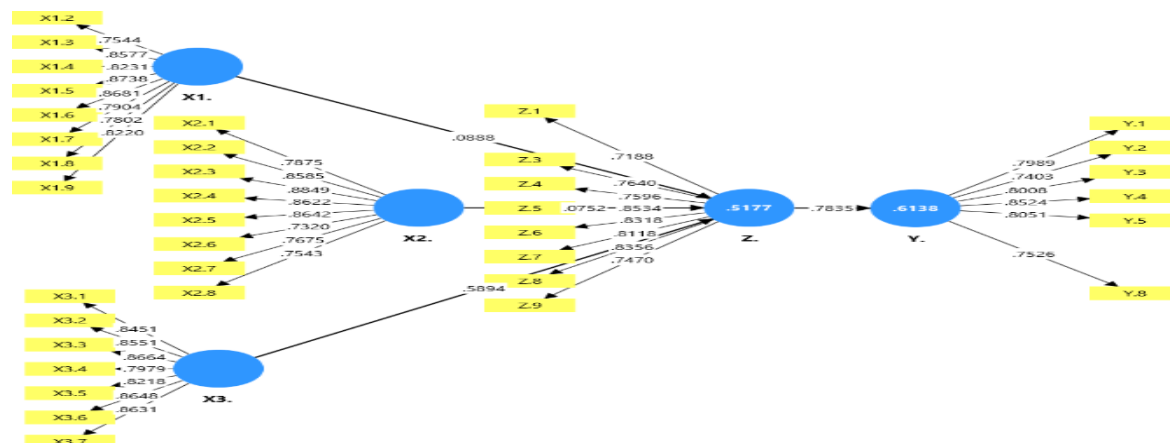


Figure 3. Model Pengujian PLS Bootstrapping

Hypothesis Testing and Discussion

The direct effect of each variable is tested using output path coefficients, and the indirect effect is tested using the indirect effect. The hypothesis between variables is accepted if the T-statistic value is higher than 1.96. Conversely, it is rejected if the T-statistic value is lower than 1.96 (Savitri et al., 2021).

Table 7. Path Coefficients

Hypothesis	Tstatists (O/ST DEV)	P values	Hasil
X1. Tax Administration System Modernization -> Y. Taxpayer Compliance	,7208	,4711	Rejected
X1 Tax Administration System Modernization -> Z. Taxpayer Awareness	,7260	,4679	Rejected
X2. Tax Socialization -> Y. Taxpayer Compliance	,5278	,5977	Rejected
X2. Tax Socialization -> Z. Taxpayer Awareness	,5370	,5913	Rejected
X3. Taxpayer Trust in tax authority -> Y. Taxpayer Compliance	4,7755	,0000	Accepted
X3. Taxpayer Trust in tax authority -> Z. Taxpayer Awareness	4,9905	,0000	Accepted
Z. Taxpayer Awareness -> Y. Taxpayer Compliance	20,1654	,0000	Accepted
X3. Taxpayer Trust in tax authority -> Z Taxpayer Awareness -> Y. Taxpayer Compliance	4,7755	,0000	Accepted
X1. Tax Administration System Modernization -> Z. Taxpayer Awareness -> Y. Taxpayer Compliance	,7208	,4711	Rejected
X2. Tax Socialization -> Z Taxpayer Awareness -> Y. Taxpayer Compliance	,5278	,5977	Rejected

Source: processed from primary data 2025

Effect of X1 on Z

The path coefficient test results obtained a T-statistic of $0.7208 < 1.96$ and a P-value of $0.4711 > 0.05$. These results indicate that the Tax System Update does not significantly impact Taxpayer Awareness. Therefore, hypothesis one (H1), which stated that the modernization of tax system has an impact on taxpayer awareness in North Jakarta, was not proven, so H_0 was accepted and H_a was rejected. The findings of this study are inconsistent with those of Fathani & Apollo (2020), who stated that the modernization of the tax system significantly impacts taxpayer compliance among Individual Taxpayers at the Jakarta-Palmerah Tax Office (KPP Pratama).

Effect of X2 on Z

The path coefficient test results obtained a T-statistic of $0.5370 < 1.96$ and a P-value of $0.5913 > 0.05$. These results indicate that Tax Socialization has no impact on Taxpayer Awareness. Thus, hypothesis two (H2), that tax socialization has a significant influence on taxpayer awareness in North Jakarta, is not proven, so H_0 is accepted, and H_a is rejected. This result aligns with the findings of Purba & Yusuf (2022), which found that tax socialization has no influence on taxpayer awareness, thus rejecting the findings of research conducted by Zaikin et al. (2023) and Boediono et al. (2018), which found that taxpayer awareness is influenced by tax socialization.

Effect of X3 on Z

The path coefficient test results obtained a T-statistic of $4.9905 > 1.96$ and a P-value of $0.0000 < 0.05$. These results indicate that trust in tax authorities has a significant influence on taxpayer awareness. Therefore, hypothesis two (H3), namely that the level of trust in tax authorities has a significant impact on taxpayer awareness in North Jakarta, is confirmed. Therefore, the hypothesis H_0 is rejected and H_a is accepted.

This finding aligns with Zainudin et al. (2022), Asmapane & Putri (2025), and Pauji (2020), which stated that trust in tax authorities has an impact on taxpayer awareness.

Effect of Z on Y

The path coefficient test results obtained a T-statistic of $20.1654 > 1.96$ and a P-value of $0.000 < 0.05$. These results indicate that taxpayer awareness has a significant influence on taxpayer compliance. This means that the fourth hypothesis (H4), "Taxpayer Awareness has a significant influence on Taxpayer Compliance in North Jakarta," is confirmed, meaning H_0 is rejected and H_a is accepted.

The results of this study align with those of Zaikin et al. (2023), who stated that Taxpayer Awareness has an influence on Taxpayer Compliance. This contradicts the results of the study by Karnedi & Hidayatulloh (2019), who stated that Taxpayer Awareness has no influence on Taxpayer Compliance.

Effect of X1 on Y

Path coefficient testing shows a T-statistic value of $0.7208 < 1.96$ and a P-value of $0.4711 > 0.05$. These results indicate that Tax System Modernization has no significant influence on Taxpayer Compliance. This means that the fifth hypothesis (H5), "Tax System Modernization has an influence on Taxpayer Compliance in North Jakarta," is rejected, meaning H_0 is accepted and H_a is rejected.

The results of this study are inconsistent with those conducted by Muturi (2015); Rokib (2019); Wijaya (2021), and Firli & Efriyenti (2021), who stated that the Modernization of tax system has an impact on Taxpayer Compliance.

Effect of X2 on Y

The effect of Tax Socialization on Taxpayer Compliance, as seen from the output path coefficients, shows a T-statistic of $0.5278 < 1.96$ and a P-value of $0.5977 > 0.05$. These results indicate that Tax Socialization has no effect on Taxpayer Compliance. This means that the sixth hypothesis (H6), that Tax Socialization has no effect on Taxpayer Compliance in North Jakarta, is rejected. This means that H_0 is accepted and H_a is rejected.

The results of this study confirm the findings of Devi & Purba (2020) and Yulia et al. (2020), which concluded that socialization has no effect on Taxpayer Compliance. This study's findings contradict those of Prena & Putuhena (2022) and Zaikin et al. (2023), which stated that Tax Socialization has an effect on Taxpayer Compliance.

Effect of X3 on Y

The effect of the level of trust in tax authorities on taxpayer compliance, as seen from the output path coefficients, shows a T-statistic of $4.7755 > 1.96$ and a P-value of $0.0000 < 0.05$. These results indicate that the level of trust in tax authorities has a significant effect on taxpayer compliance. This means that the seventh hypothesis (H7), that the level of trust in tax authorities has a significant effect on taxpayer compliance in North Jakarta, is confirmed. This means that H_0 is rejected and H_a is accepted.

The results of this study align with those conducted by Zainudin et al. (2022), Asmapane & Putri (2025), and Pauji (2020), which state that the level of trust in tax authorities influences taxpayer compliance.

The Mediating Effect of Z on X1 on Y

The direct influence of Tax Administration System Modernization on Taxpayer Compliance, with Taxpayer Awareness as the mediating variable, can be seen from the path coefficients obtained: the T-statistics value is $0.7208 < 1.96$ and the P-value is $0.4711 > 0.05$. These results indicate that Tax Administration System Modernization has no effect on Taxpayer Compliance, with Taxpayer Awareness as the mediating variable. This means that the eighth hypothesis (H8), which states that Taxpayer Awareness mediates Tax Administration System Modernization, has a significant effect on Taxpayer Compliance in North Jakarta, is not proven, meaning H_0 is accepted and H_a is rejected.

The results of this study align with those conducted by Pernamasari & Rahmawati (2021) and Damayanti & Amah (2018), which stated that Tax Administration System Modernization has no effect on Taxpayer Compliance, with Taxpayer Awareness as the mediating variable.

The Mediating Effect of Z on X2 on Y

The direct mediation effect of Taxpayer Awareness and Tax Socialization on Taxpayer Compliance can be seen from the path coefficients obtained, with a T-statistic of $0.5278 < 1.96$ and a P-value of $0.5977 > 0.05$. These results indicate that Tax Socialization has no effect on Taxpayer Compliance, with Taxpayer Awareness as the mediating variable. This means that the ninth hypothesis (H9), which states that Taxpayer Awareness mediates Tax Socialization's significant influence on Taxpayer Compliance in North Jakarta, is disproven. H_0 is accepted and H_a is rejected.

The results of this study are inconsistent with those of Prena & Putuhena (2022) and Zaikin et al. (2023), which stated that Tax Socialization has an effect on Taxpayer Compliance, with Taxpayer Awareness as the mediating variable.

The Effect of Z Mediates X3 on Y

The effect of the Level of Trust on Taxpayer Compliance, with Taxpayer Awareness as a mediating variable, can be directly seen from the path coefficient output, which shows a T-statistic of $4.7755 > 1.96$ and a P-Value of $0.000 < 0.05$. These results indicate that the Level of Trust in Tax Authorities influences Taxpayer Compliance, with Taxpayer Awareness as a mediating variable. This means that the tenth hypothesis (H10), that Taxpayer Awareness mediates the Level of Trust in Tax Authorities, which has a significant effect on Taxpayer Compliance in North Jakarta, is confirmed. This means that H_0 is rejected and H_a is accepted.

The results of this study align with those of Zainudin et al. (2022); Pauji (2020), who stated that the Level of Trust in Tax Authorities influences Taxpayer Compliance, with Taxpayer Awareness as a mediating variable.

CONCLUSION

1. Modernization of tax system has no significant impact on taxpayer compliance. This indicates that the efforts to reform this modern administration system have not yet increased taxpayer awareness of compliance.
2. Tax socialization has no impact on taxpayer awareness. This indicates that one of the factors influencing the level of taxpayer compliance is a lack of tax socialization. This is because the tax socialization process is inconsistent with the initial stages and the lack of intensity of socialization from the tax authorities to taxpayers, negatively impacting taxpayer awareness.
3. The level of trust in the tax authorities has a significant impact on taxpayer awareness. This indicates that the level of trust in the tax authorities is a determining factor in taxpayer awareness. Researchers suspect that taxpayer awareness will increase because taxpayers perceive the tax authorities to have integrity.

4. Tax awareness has an impact on taxpayer compliance. This indicates that the level of taxpayer compliance is influenced by these factors, and the higher the level of taxpayer awareness, the higher the level of taxpayer compliance.
5. Modernization of tax system has no impact on tax compliance. Researchers suspect that the numerous failures and errors that occurred during the initial implementation created negative perceptions of taxpayer compliance.
6. Tax socialization has no impact on tax compliance. Researchers suspect that the lack of intensity of tax socialization by the tax authorities and the material presented do not reflect actual application. This has resulted in a decline in taxpayer compliance.
7. The level of trust in the tax authorities has a significant impact on taxpayer compliance. Researchers suspect that although there are still reports of individuals committing reprehensible acts, this institution has strived to demonstrate good integrity.
8. Taxpayer awareness mediates the Modernization of tax system has no impact on taxpayer compliance. Researchers suspect that the numerous failures and errors that occurred during the initial implementation created negative perceptions of taxpayer compliance.
9. Taxpayer awareness mediates tax socialization has no impact on taxpayer compliance. Researchers suspect that one of the causes is the lack of intensity of tax socialization by the tax authorities and the material presented does not reflect actual application. This reduces taxpayer awareness, leading to a decline in taxpayer compliance.
10. Taxpayer awareness mediates the influence of trust in the tax authority on taxpayer compliance. Researchers suspect that despite reports of individuals committing reprehensible acts, the institution has strived to demonstrate good integrity.

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