

THE EFFECT OF CORETAX, TAX AUDITS, PENALTIES, AND AWARENESS ON INDIVIDUAL TAXPAYER COMPLIANCE AT MEDAN POLONIA

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Abstract

This study aims to analyze the effect of Coretax Implementation, Tax Audits, Tax Sanctions, and Tax Socialization on Individual Taxpayer Compliance at KPP Pratama Medan Polonia. The study employed a quantitative approach using primary data collected through questionnaires distributed to 125 individual taxpayers who possess a Tax Identification Number (NPWP) and have utilized the Coretax system. The sampling technique used was purposive sampling. Data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with SmartPLS 4 software. The outer model assessment indicated that all indicators met the required validity and reliability criteria. Furthermore, the inner model results revealed that Coretax Implementation had a positive and significant effect on Taxpayer Compliance ($\beta = 0.224$; $p = 0.001$), Tax Audits had a positive and significant effect ($\beta = 0.327$; $p = 0.000$), Tax Sanctions had a positive and significant effect ($\beta = 0.221$; $p = 0.000$), and Tax Socialization had a positive and significant effect ($\beta = 0.378$; $p = 0.000$). The Adjusted R-Square value of 0.802 indicates that the model explains 80.2% of the variance in Taxpayer Compliance. These findings suggest that optimizing Coretax implementation, strengthening tax audits, consistently enforcing tax sanctions, and enhancing tax socialization programs can significantly improve taxpayer compliance.

Keywords: Coretax Implementation, Tax Audits, Tax Sanctions, Tax Socialization, Taxpayer Compliance.

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1. Introduction

Taxes are the primary source of government revenue and play a strategic role in financing national development in Indonesia (Adilla et al., 2025; Herlinanur et al., 2025). Within the structure of the State Budget (APBN), tax

revenue has consistently accounted for approximately 70%–80% of total government revenue in recent years, making taxes the backbone of national fiscal sustainability (Ministry of Finance, 2023; Directorate General of Taxes, 2023). This high contribution indicates that the effectiveness of the tax system is crucial to the government's ability to provide public services and drive economic growth. Therefore, improving taxpayer compliance has become a key focus of fiscal policy to optimize government revenue (Elumilade et al., 2022; Svetlozarova Nikolova, 2023).

Although tax revenues constitute a dominant portion of the state budget, the government still faces challenges in improving taxpayer compliance. Nationally, there is a gap between the number of registered taxpayers and those who actively file and pay their taxes on time. This situation indicates that the potential for tax revenue has not yet been fully realized (Directorate General of Taxes, 2023). Various factors—such as administrative complexity, limited access to services, and low taxpayer understanding—pose obstacles that affect compliance rates, necessitating policy innovations capable of comprehensively addressing these challenges (Idrus, 2024; Nurfuadi & Nasution, 2025).

In response to these issues, the government, through the Directorate General of Taxes (DJP), has undertaken digital-based tax reforms by developing a modern administrative system, which was initially realized through the implementation of e-filing and e-billing. This transformation aims to improve efficiency, convenience, and transparency in the tax reporting and payment processes (Hesami et al., 2024; Lubis et al., 2023; Mpofu, 2024). Empirically, the adoption rate of digital tax services continues to rise, with the use of e-filing for Annual Tax Return (SPT) submissions reaching over 80% in recent years. However, this increase in digitalization has not been fully accompanied by a significant improvement in taxpayer compliance, indicating that partial digitalization has not yet been able to address all issues within the tax system.

In line with these developments, the government is continuing its tax reform efforts through the implementation of the Core Tax Administration System (Coretax) as an integrated tax administration system. Coretax was initially developed as part of the Directorate General of Taxes' medium-term tax reform program and has been accelerated in recent years, with a phased implementation targeted to be fully operational by 2024–2025 (Directorate General of Taxes, 2023; Ministry of Finance, 2024). This system is designed to integrate all tax-related business processes into a single digital platform, covering

registration, reporting, payment, and real-time monitoring. Conceptually, an integrated system such as Coretax is believed to be capable of improving service quality, data accuracy, and the effectiveness of oversight, thereby potentially enhancing taxpayer compliance more effectively than previous systems (Islam et al., 2025; Sheng, 2025) .

Although Coretax has been officially introduced as Indonesia's newest integrated tax administration system, its early implementation has not been entirely smooth. During the transition period, taxpayers and tax officers encountered various technical challenges, including system downtime, data migration issues, difficulties in accessing several tax services, and adaptation to the new digital interface. These transitional issues indicate that the success of Coretax implementation depends not only on technological sophistication but also on taxpayers' readiness, institutional support, and continuous assistance provided by the Directorate General of Taxes. Therefore, evaluating taxpayer responses toward Coretax during its initial implementation period becomes increasingly important in understanding whether the new system is capable of improving taxpayer compliance.

This phenomenon is also reflected at the regional level, particularly in North Sumatra Province, which has a dynamic economy. The city of Medan, as the economic hub of this region, makes a significant contribution to regional tax revenue. Based on the Regional Gross Domestic Product (RGDP) at current prices for 2024, Medan's economy reached Rp329.61 trillion, demonstrating the region's substantial economic potential and tax base (Central Bureau of Statistics, 2024). With the number of taxpayers continuing to rise each year, the effectiveness of tax administration in the City of Medan has become a key indicator in assessing the success of tax policy implementation, particularly in the context of digital transformation through Coretax. The City of Medan has several Tax Service Offices (KPP) that play a role in managing tax administration and serve as the frontline in promoting taxpayer compliance at the local level.

Table 1. Number of Taxpayers at the Tax Office in Medan in 2024

No	Tax Service Office	Number of Registered Taxpayers	WP Reports Tax Return	Compliance (%)
1	KPP Madya Medan	121.347	86.219	71,03%
2	KPP Madya Dua Medan	149.862	109.574	73,14%
3	KPP Pratama Medan Barat	131.275	91.083	69,39%

No	Tax Service Office	Number of Registered Taxpayers	WP Reports Tax Return	Compliance (%)
4	KPP Pratama Medan Belawan	138.944	94.267	67,84%
5	KPP Pratama Medan Timur	126.518	87.905	69,47%
6	KPP Pratama Medan Polonia	102.763	66.842	65,05%
7	KPP Pratama Medan Petisah	111.906	76.331	68,21%

Source: Directorate General of Taxes (DJP), pajak.go.id

Based on Table 1, it can be seen that the number of taxpayers registered at each Tax Office (KPP) in the city of Medan is relatively large, yet the tax return filing compliance rate remains in the range of 65% to 73%. This situation indicates a gap between the number of registered taxpayers and those who actively file their tax returns, which has the potential to hinder the optimization of tax revenue at the local level. Upon further analysis, the Medan Polonia Primary Tax Office (KPP Pratama), which is the subject of this study, shows the lowest compliance rate compared to other Tax Offices, at 65.05%. This figure indicates that there are still significant challenges in promoting taxpayer compliance in that area, despite the relatively large number of taxpayers. The low compliance rate at the Medan Polonia Primary Tax Office is a major concern, as it reflects the suboptimal effectiveness of both the tax system and the policies implemented to improve taxpayer compliance. In addition to the compliance rate, tax revenue performance can also be analyzed by comparing tax revenue targets with actual collections.

Table 2. Tax Revenue Targets and Actual Collections for the Medan City Tax Office in 2024

No	Tax Service Office	Target (in billions of Rp)	Actual Amount (in billions of Rp)	Percentage (%)
1	KPP Madya Medan	2.547,85	2.163,42	84,91 %
2	KPP Madya Dua Medan	3.128,64	2.781,53	88,92%
3	KPP Pratama Medan Barat	2.736,19	2.214,67	80,94%
4	KPP Pratama Medan Belawan	2.489,73	1.932,58	77,64%
5	KPP Pratama Medan Timur	2.814,26	2.327,41	82,70%
6	KPP Pratama Medan Polonia	2.563,90	2.041,76	79,64%
7	KPP Pratama Medan Petisah	2.695,38	2.189,54	81,24%

Source: Directorate General of Taxes (DJP), pajak.go.id

Based on Table 2, it can be seen that tax revenue collection at various Tax Service Offices (KPP) in the city of Medan has not yet fully met the set targets, with achievement rates ranging from 77% to 90%. This situation indicates that

there is still untapped potential for tax revenue. One factor believed to contribute to this situation is the suboptimal level of taxpayer compliance in fulfilling their tax obligations. Based on the findings and data in Tables 1 and 2, it is evident that the compliance rate and revenue targets at the Medan Polonia Tax Office are contributing at a very minimal level. This aligns with the research by Kinanti et al. (2025) and Mandasari (2024), which indicates that the ease of use and development of an integrated digital tax system can help achieve tax revenue targets and improve taxpayer compliance. In this context, taxpayer compliance is influenced not only by the convenience of digital tax administration systems, such as e-filing and e-billing, but also by law enforcement and education. The implementation of e-filing and e-billing systems simplifies tax reporting and payment, and is therefore expected to improve taxpayer compliance (Fazhillah et al., 2024; Fazhillah & Nurlaila, 2024; Lubis et al., 2023). On the other hand, tax audits and the imposition of tax penalties serve as oversight and control mechanisms that can encourage taxpayers to be more compliant. Additionally, tax outreach plays a crucial role in enhancing taxpayers' understanding and awareness of their tax obligations (Siregar & Kusmilawaty, 2022).

A number of previous studies in Indonesia have shown that various factors are significantly associated with taxpayer compliance rates. In recent developments, the digital transformation of the tax system through the implementation of the Core Tax Administration (Coretax) system has become a key focus in improving service quality and taxpayer compliance. Coretax is an integrated tax administration system that combines various tax services into a single digital platform, thereby expected to enhance efficiency, transparency, and convenience for taxpayers. Several empirical studies show that the implementation of an integrated digital tax administration system has a positive impact on taxpayer compliance. Research by Dhaliwal et al. (2023) and Slimani & Abidli (2025) indicates that the digitization of tax services can improve taxpayer compliance through ease of access and administrative efficiency.

Furthermore, research by Ilyas et al. (2025) and Musseng et al. (2023) shows that a modern, integrated tax administration system has a significant impact on improving taxpayer compliance. In addition, Muttiwijaya et al. (2025) and Roger (2021) also found that tax digitization, supported by law enforcement measures such as tax penalties, contributes positively to promoting taxpayer compliance. Several studies also confirm that tax outreach continues to play a crucial role in improving taxpayers' understanding of new systems, including

the implementation of Coretax. A solid understanding of integrated digital systems will make it easier for taxpayers to fulfill their tax obligations, ultimately leading to an increase in overall compliance rates.

Previous studies have extensively examined the relationship between digital tax administration and taxpayer compliance, particularly through e-Filing and e-Billing systems. However, empirical findings remain inconsistent. Several studies reported that digital tax services significantly improve taxpayer compliance by increasing administrative efficiency and ease of use, whereas other studies found insignificant or limited effects due to technological readiness, taxpayers' digital literacy, and adaptation problems. Furthermore, previous studies generally investigated technological factors, tax audits, tax penalties, and tax awareness separately rather than integrating these dimensions into a comprehensive analytical framework. Consequently, empirical evidence regarding how these four factors simultaneously influence taxpayer compliance under the newly implemented Coretax system remains limited.

Therefore, The novelty of this study lies in several aspects. First, this research investigates Coretax, Indonesia's newest integrated tax administration system, whereas previous studies primarily focused on earlier digital taxation platforms such as e-Filing and e-Billing. Second, this study simultaneously integrates technological factors (Coretax implementation), enforcement mechanisms (tax audits and tax penalties), and educational aspects (tax awareness campaigns) into a single structural model to explain taxpayer compliance. Third, this study focuses on individual taxpayers registered at KPP Pratama Medan Polonia, one of the tax offices with relatively low compliance rates in Medan, thereby providing empirical evidence regarding taxpayer behavior during the early implementation of Coretax. Accordingly, this study contributes to expanding the literature on digital tax administration and taxpayer compliance within Indonesia's ongoing tax reform.

Taxes and Taxpayer Compliance

A tax is a mandatory contribution to the state that is enforced by law without any direct compensation, which is used to finance government expenditures for the greatest possible prosperity of the people (Bhatia, 2018; Kurniawan, 2020). In modern tax systems, taxes play a crucial role not only as a source of government revenue (the budgetary function) but also as a tool for regulating the economy (the regulatory function). Furthermore, compliance

theory explains that taxpayer compliance can be achieved through two approaches: voluntary compliance and enforced compliance. Therefore, the optimization of tax revenue depends heavily on the effectiveness of the tax system and the level of taxpayer compliance.

Taxpayer compliance refers to a situation in which taxpayers fulfill all their tax obligations in accordance with applicable regulations, both in terms of tax reporting and payment (Fazhillah et al., 2024; Fazhillah & Nurlaila, 2024). This compliance can be divided into formal compliance and material compliance. Formal compliance relates to the timeliness of reporting, while material compliance relates to the accuracy of the content of tax returns. The level of taxpayer compliance serves as a key indicator in assessing the success of a country's tax system. Several studies indicate that the level of taxpayer compliance is still influenced by various factors, both internal and external. Internal factors include taxpayer awareness and understanding, while external factors include the tax administration system, oversight, penalties, and outreach efforts conducted by tax authorities (Ali-Nakyea & Ankah, 2026; Rimadhani et al., 2024). Therefore, a comprehensive approach is needed to improve taxpayer compliance.

Definition and Application of Coretax

The implementation of the Core Tax Administration System (Coretax) is part of the digital transformation of the tax system, which aims to improve the quality of tax administration and services in an integrated manner. This system combines various tax services into a single platform, enabling taxpayers to file returns, make payments, and access information more easily, quickly, and transparently. The convenience and efficiency offered by Coretax are expected to reduce administrative barriers and improve the taxpayer experience in fulfilling their tax obligations, thereby potentially boosting compliance. Several previous studies have shown that the digitization of tax systems has a positive impact on taxpayer compliance.

Tumannger & Syarvina (2024) found that the implementation of a digital-based tax system can positively increase compliance through ease of access and service efficiency. Alam & Saeed (2024) and Wulandari & Limajatini (2022) also demonstrated that the modernization of the tax administration system has a significant positive impact on taxpayer compliance. Furthermore, Ezeife et al. (2021) and Sajid et al. (2025) noted that the integration of tax systems, supported

by technological advancements, can improve taxpayer compliance, particularly when accompanied by improvements in service quality and oversight. Thus, the implementation of Coretax as an integrated tax system is expected to have a positive impact on taxpayer compliance.

Hypothesis 1: The implementation of Coretax has a positive effect on taxpayer compliance at the Medan Polonia Local Tax Office

Definition of Tax Audits

A tax audit is an activity conducted by tax authorities to assess taxpayers' compliance with their tax obligations (Siregar & Kusmilawaty, 2022). The purpose of this audit is to ensure that taxpayers have reported and paid their taxes in accordance with applicable regulations. From the perspective of compliance theory, tax audits can enhance compliance through a monitoring effect. Taxpayers tend to be more compliant when they feel they are being monitored by tax authorities. This indicates that tax audits play a crucial role in improving taxpayer compliance. Research by Bugaje et al. (2023) and Gulzar et al. (2024) shows that tax audits have a significant positive effect on taxpayer compliance. Additionally, Hasanah et al. (2023) also found that tax audits can improve taxpayer compliance.

Hypothesis 2: Tax audits have a positive effect on taxpayer compliance at the Medan Polonia Local Tax Office

Definition of Tax Penalties

Tax penalties are consequences imposed on taxpayers who fail to fulfill their tax obligations in accordance with applicable regulations (Indah & Setiawan, 2020). These penalties may take the form of administrative fines, interest, or other penalties stipulated in tax regulations. The imposition of penalties aims to foster compliance by serving as a deterrent to taxpayers who commit violations, thereby encouraging them to fulfill their tax obligations on time and in accordance with regulations. From the perspective of compliance theory, tax penalties function as a deterrent—a preventive mechanism that causes taxpayers to weigh the risks and consequences of noncompliance. The higher the perceived level of risk resulting from the existence of penalties, the greater the tendency for taxpayers to comply. This indicates that penalties serve

not only as a means of punishment but also as an instrument to regulate taxpayer behavior, ensuring it remains within the framework of tax regulations.

Furthermore, the effectiveness of tax penalties is also greatly influenced by the level of consistency and strictness in their enforcement. Strict penalties that are applied fairly will increase trust in the tax system, thereby encouraging compliance—whether voluntarily or due to regulatory pressure. Conversely, weak or inconsistent penalties can actually lower compliance rates because taxpayers do not perceive any significant consequences for their violations. Previous research supports the relationship between tax penalties and taxpayer compliance. Kushwah et al. (2021) and Larasdiputra & Saputra (2021) found that tax penalties have a positive and significant effect on taxpayer compliance. Similar results were also found by Purnamasari et al. (2024), who showed that the stricter the enforcement of tax sanctions, the higher the level of taxpayer compliance in fulfilling their obligations.

Hypothesis 3: Tax penalties have a positive effect on taxpayer compliance at the Medan Polonia Local Tax Office

Definition of Tax Awareness Campaign

Tax outreach is defined as efforts undertaken by tax authorities to convey information regarding regulations, procedures, and the importance of taxation to the public (Bouaddi et al., 2025). These activities are carried out through various media, both directly—such as educational sessions and seminars—and indirectly through digital platforms. The primary objective of tax outreach is to enhance taxpayers' level of understanding and awareness so that they can fulfill their tax obligations accurately and in accordance with applicable regulations. From the perspective of the *Theory of Planned Behavior* (TPB) (Fishbein & Ajzen, 2011), tax outreach contributes to shaping taxpayers' attitudes, subjective norms, and perceptions of control regarding their tax obligations. Information obtained through these outreach efforts strengthens taxpayers' understanding, thereby influencing their intention to comply. The higher the level of understanding, the greater the likelihood that taxpayers will voluntarily fulfill their tax obligations.

In addition, tax outreach plays a role in fostering voluntary compliance. Taxpayers with adequate knowledge tend to have a greater awareness of the importance of taxes as a contribution to national development. Thus, outreach not only leads to increased compliance in the short term but also fosters

sustainable compliance behavior in the long term. Previous research has shown a positive relationship between tax outreach and taxpayer compliance. Fadhilatunisa & Alisyahbana (2024) and Gitaru (2017) found that increasing the intensity of outreach efforts can improve taxpayers' understanding and compliance. Similar results were also reported by Larasdiputra & Saputra (2021), who demonstrated that tax outreach makes a significant positive contribution to promoting taxpayer compliance, both formally and materially.

Hypothesis 4: Tax Awareness Campaign has a positive effect on taxpayer compliance at the Medan Polonia Local Tax Office.

2. Research Method

Design, Samples, and Data Analysis Techniques

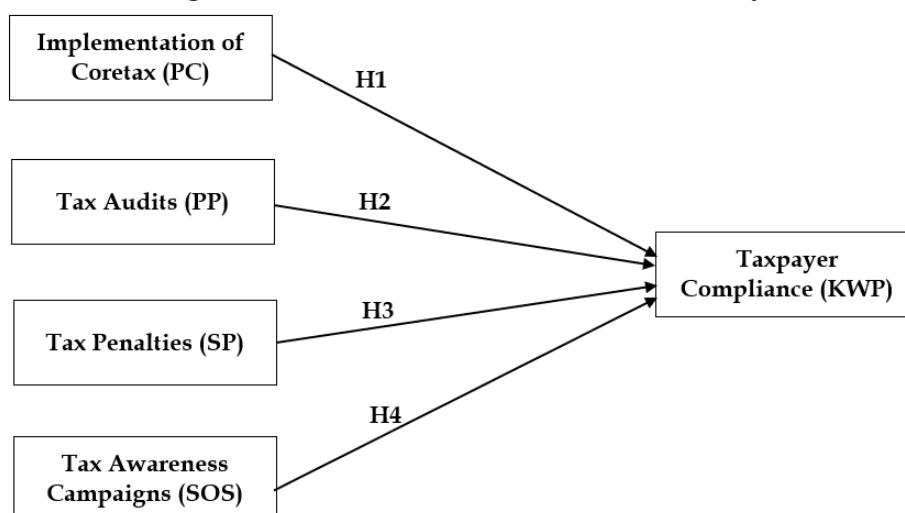
This study employs a quantitative design with an associative research approach aimed at analyzing the factors that influence individual taxpayers' compliance. The study focuses on taxpayers registered at the Medan Polonia Tax Office, with a population of 102,763 registered taxpayers based on data from the Medan Polonia Tax Office, of whom 1,375 visit the office each month. The data used consists of primary data obtained through the distribution of questionnaires to respondents who met the research criteria. The research instrument was designed using a five-point Likert scale to measure respondents' perceptions of the variables—Coretax implementation, tax audits, tax penalties, and tax outreach—as well as taxpayer compliance as the dependent variable (Gries et al., 2018). The sampling technique used was purposive sampling, with the criteria for respondents being individual taxpayers who have a Taxpayer Identification Number (NPWP) and have previously used the digital tax service, namely Coretax.

The purposive sampling technique was selected because this study specifically aimed to obtain responses from individual taxpayers who had direct experience using the Coretax system. Since Coretax is a newly implemented tax administration system in Indonesia, not all registered taxpayers have utilized the system or possess sufficient experience to evaluate its implementation. Therefore, selecting respondents based on predetermined criteria ensured that the collected data were relevant to the research objectives and reflected actual user experiences. Nevertheless, the use of purposive

sampling may introduce selection bias because respondents were not randomly selected from the entire taxpayer population. Consequently, taxpayers who had not yet adopted Coretax, rarely visited the tax office, or were unavailable during the survey period were not represented in this study. Therefore, the findings should be interpreted within the context of individual taxpayers registered at KPP Pratama Medan Polonia and should not be generalized to other tax offices or taxpayer groups without further empirical verification.

The sample size for this study was determined based on the recommended approach, which ranges from 5 to 10 times the number of research indicators (J. F. Hair et al., 2022). Furthermore, in the context of Structural Equation Modeling (SEM)-based analysis, this study utilized 125 respondents with a total of 24 indicators, which is acceptable according to the guidelines provided by Hair et al. (2022). Thus, the sample size in this study was adjusted to meet the needs of the analysis and the availability of respondents who met the criteria. Data analysis was conducted using SmartPLS 4 software, including analysis of the Outer Model (Cronbach's Alpha, Outer Loadings, Composite Reliability, and Average Variance Extracted) and the Inner Model (Model Fit, Hypotheses, and Coefficient of Determination) (J. Hair et al., 2017; J. F. Hair et al., 2022; Henseler & Sarstedt, 2021). The theoretical framework for this study is as follows.

Figure 1. Theoretical Framework of the Study



Measurement of Variables

The variables in this study were measured using a questionnaire designed based on indicators from relevant previous studies. All statement items were measured using a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), to capture respondents' perceptions quantitatively (Gries et al., 2018). The variables measured include the implementation of Coretax, tax audits, tax penalties, tax outreach, and taxpayer compliance. Each variable was broken down into several indicators tailored to the context of the study to accurately represent the constructs under investigation. Details regarding the measurement of variables in this study can be found in Table 3.

Table 3. Measurement of Variables

Variable	Item	Scale	Source
Implementation of Coretax (PC)	Coretax makes it easier to register taxpayers (X1.1)	Likert 1-5	Alam & Saeed (2024); Tumannger & Syarvina (2024); Wulandari & Limajatini (2022)
	Coretax simplifies administrative tasks through a single portal. (X1.2)		
	Coretax allows taxpayers to reduce the likelihood of errors when filing their tax returns. (X1.3)		
	Coretax provides data transparency to taxpayers (X1.4)		Wulandari & Limajatini (2022)
	Coretax streamlines various tax services and allows the process to be monitored in real time (X1.5)		Ezeife et al. (2021); Sajid et al. (2025)
	Tax audits have improved my compliance (X2.1)		Gulzar et al. (2024)
	I feel like I'm being watched by the tax authorities (X2.2)		Bugaje et al. (2023)
Tax Audit (PP)	The tax audit has made me more cautious (X2.3)	Likert 1-5	Bugaje et al. (2023); Ezeife et al. (2021); Wulandari & Limajatini (2022)
	Tax audits are conducted professionally (X2.4)		
	Tax audits encourage me to file my taxes correctly (X2.5)		Tumannger & Syarvina (2024)
	Tax penalties make me pay my taxes on time (X3.1)		Indah & Setiawan,

Variable	Item	Scale	Source
Tax Penalties (SP)			(2020); Kushwah et al. (2021)
	Tax penalties make me avoid late payments (X3.2)		
	Tax penalties serve as a deterrent (X3.3)	Likert 1-5	Larasdiputra & Saputra (2021); Purnamasari et al. (2024)
	Tax penalties are strictly enforced (X3.4)		
	I consider the penalties before breaking tax rules (X3.5)		Wulandari & Limajatini (2022)
	Tax outreach has improved my understanding (X4.1)		
Tax Awareness Campaign (SOP)	Tax information is readily available from the tax authorities (X4.2)		Bouaddi et al. (2025); Fadhilatunisa & Alisyahbana (2024); Gitaru (2017)
	Tax outreach helped me understand my tax obligations (X4.3)	Likert 1-5	
	I attended a tax awareness session (X4.4)		Kushwah et al. (2021); Larasdiputra & Saputra (2021)
	Tax outreach has raised my awareness (X4.5)		
	I always file my tax return on time (Y.1)		Ali-Nakyea & Ankah (2026); Fazhillah & Nurlaila (2024)
Taxpayer Compliance (KWP)	I pay my taxes in accordance with the regulations (Y.2)		
	I calculated the tax correctly (Y.3)	Likert 1-5	Kushwah et al. (2021)
	I have never been late in paying my taxes (Y.4)		Kurniawan (2020); Rimadhani et al. (2024)
	I comply with tax regulations (Y.5)		

3. Result and Discussion

Respondent Characteristics

Based on Table 2, the characteristics of the respondents in this study show that the majority of respondents were male, totaling 71 people (56.8%), while female respondents numbered 54 (43.2%). By age group, the largest group consisted of respondents aged 30–39 years, totaling 41 people (32.8%), followed by those aged 20–29 years (33 people, 26.4%), those aged 40–49 years (29 people, 23.2%), and those aged 50 years or older (22 people, 17.6%). By occupation, the majority of respondents were private-sector employees, totaling 47 people (37.6%), followed by self-employed individuals (32 people, 25.6%), civil servants (18 people, 14.4%), professionals (13 people, 10.4%), and those in other occupations (15 people, 12.0%). In terms of education, the majority of respondents held a bachelor's degree (S1), totaling 58 people (46.4%), followed by high school or equivalent (24 people, 19.2%), graduate degrees (22 people, 17.6%), and diplomas (21 people, 16.8%). Meanwhile, based on the length of time they have held an NPWP, the majority of respondents – 39 people (31.2%) – have held an NPWP for 3–5 years, followed by 36 people (28.8%) for 6–10 years, 27 people (21.6%) for less than 3 years, and 23 people (18.4%) for more than 10 years. These findings indicate that most respondents have sufficient experience in fulfilling their tax obligations and are therefore considered capable of providing relevant information regarding the variables under study.

Table 2. Respondent Characteristics

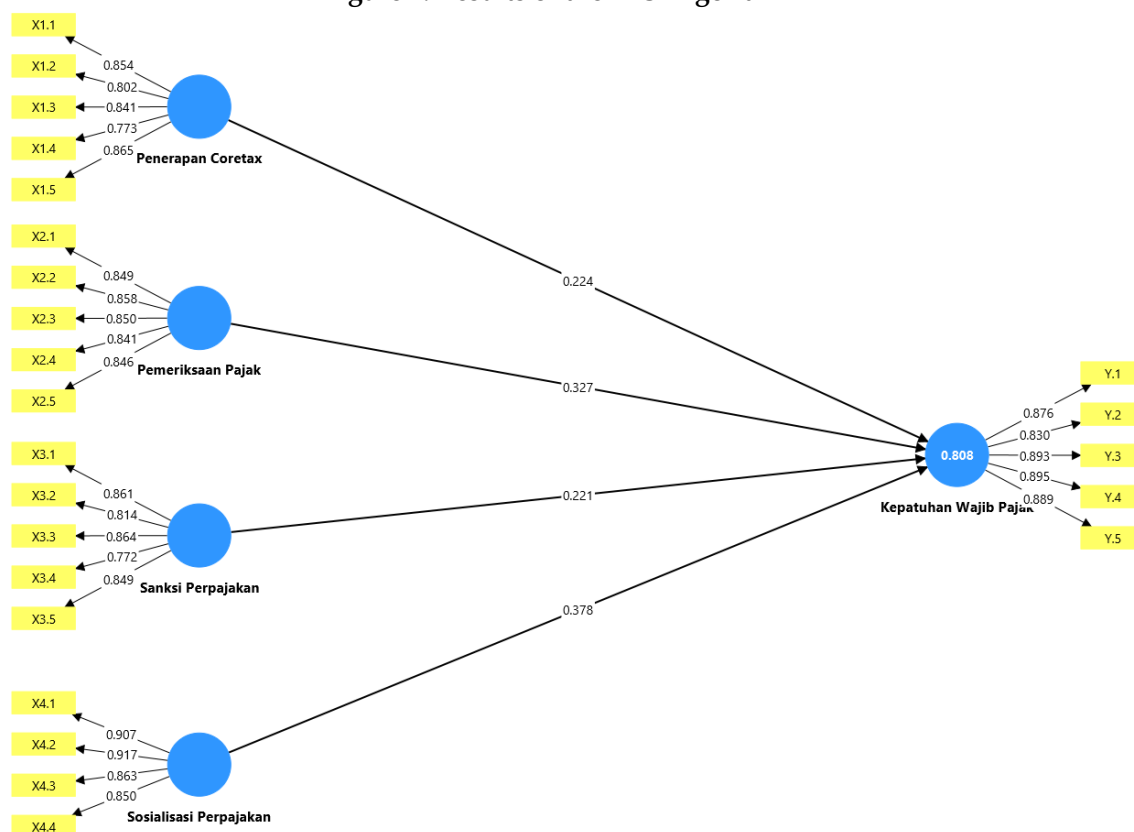
Category	Description	Frequency	Percentage (%)
Gender	Male	71	56,8
	Female	54	43,2
Age	Ages 20–29	33	26,4
	Ages 30–39	41	32,8
	Ages 40–49	29	23,2
	50 years or older	22	17,6
Jobs	Private-Sector Employees	47	37,6
	Self-Employed	32	25,6
	ASN/PNS	18	14,4
	Professional	13	10,4
	Others	15	12,0

Category	Description	Frequency	Percentage (%)
Highest Level of Education	High School or equivalent	24	19,2
	Diploma	21	16,8
	Bachelor's Degree	58	46,4
	Graduate School	22	17,6
Length of Time as an NPWP Holder	< 3 Years	27	21,6
	3–5 Years	39	31,2
	6–10 Years	36	28,8
	> 10 Years	23	18,4

N = 125

PLS Algorithm Results

This study began with model estimation using Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the relationship between the implementation of Coretax, tax audits, tax penalties, and tax outreach on individual taxpayer compliance at the Medan Polonia Primary Tax Office. The initial stage of the analysis was conducted using the PLS Algorithm to obtain a preliminary overview of the research model structure, including the direction and magnitude of path coefficients between latent constructs as well as the contribution of each indicator in representing the variables under study. As shown in Figure 2, the initial estimation results provide information on the relationship between the exogenous variables – namely, the implementation of Coretax, tax audits, tax penalties, and tax outreach – and taxpayer compliance as the endogenous variable. The results at this stage serve as the basis for evaluating the measurement model (outer model) and the structural model (inner model) before further testing is conducted. However, the path coefficient values obtained at the PLS Algorithm stage are still descriptive in nature and therefore cannot yet be used to conclude the significance of the relationships between variables or to accept or reject the research hypotheses.

Figure 2. Results of the PLS Algorithm


Outer Model Evaluation

The results of the outer model testing in Table 3 show that most of the indicators used in this study met the criteria for convergent validity. This is evidenced by factor loadings that are all above the minimum threshold of 0.70, ranging from 0.772 to 0.917. These values indicate that each indicator effectively represents the construct being measured and has a strong relationship with its latent variable. During the measurement model evaluation stage, one indicator under the Tax Socialization variable (X4.5) did not meet the criteria for convergent validity and was therefore eliminated from the research model. After the elimination process, all remaining indicators met the validity requirements and could be used in the subsequent analysis stage.

In addition, the Average Variance Extracted (AVE) values for all variables exceeded the recommended minimum threshold of 0.50. The AVE values for the variables are as follows: Coretax Implementation at 0.685, Tax Audits at 0.720, Tax Penalties at 0.693, Tax Outreach at 0.783, and Taxpayer Compliance at 0.769. These results indicate that each construct is able to explain more than 50% of the variance in the indicators that comprise it;

therefore, convergent validity in this study can be deemed to have been met. The Cronbach's Alpha (CA) values for the variables Coretax Implementation, Tax Audits, Tax Penalties, Tax Outreach, and Taxpayer Compliance were 0.885, 0.903, 0.889, 0.907, and 0.925, respectively. Meanwhile, the Composite Reliability (CR) values ranged from 0.916 to 0.943, all of which exceeded the minimum threshold of 0.70 (J. F. Hair et al., 2022; Henseler et al., 2023).

Table 3. Outer Model

Variable	Item	Loading	Cronbach Alpha	Composite Realibility	Average Variance Extarcted
Implementation of Coretax	X1.1	0.854	0.885	0.916	0.685
	X1.2	0.802			
	X1.3	0.841			
	X1.4	0.773			
	X1.5	0.865			
Tax Audit	X2.1	0.849	0.903	0.928	0.720
	X2.2	0.858			
	X2.3	0.850			
	X2.4	0.841			
	X2.5	0.846			
Tax Penalties	X3.1	0.861	0.889	0.919	0.693
	X3.2	0.814			
	X3.3	0.864			
	X3.4	0.772			
	X3.5	0.849			
Tax Awareness Campaign	X4.1	0.907	0.907	0.935	0.783
	X4.2	0.917			
	X4.3	0.863			
	X4.4	0.850			
Taxpayer Compliance	Y.1	0.876	0.925	0.943	0.769
	Y.2	0.830			
	Y.3	0.893			
	Y.4	0.895			
	Y.5	0.889			

Source: SmartPLS 4, Author's own analysis (2026)

The results of the discriminant validity test using the Heterotrait-Monotrait Ratio (HTMT) method show that all HTMT values between constructs are below the maximum threshold of 0.90 (Henseler & Sarstedt, 2021). The highest HTMT value was found in the relationship between Tax Socialization (SOS) and Taxpayer Compliance (KWP) at 0.866, while the lowest value was found in the relationship between Coretax Implementation (PC) and Tax Audits (PP) at 0.328. These findings indicate that each construct in the study exhibits a good level of discriminant validity and is capable of distinguishing itself from the other constructs (Fornell & Larcker, 1981). Thus,

it can be concluded that all research variables have met the criteria for discriminant validity, making the measurement model suitable for proceeding to the structural model evaluation stage (inner model) (J. F. Hair et al., 2022; Henseler et al., 2015).

Table 4. Heterotrait-Monotrait Ratio (HTMT)

	PC	PP	SP	SOS	KWP
PC					
PP	0.328				
SP	0.388	0.493			
SOS	0.676	0.539	0.619		
KWP	0.691	0.738	0.720	0.866	

Note : PC = Implementation of Coretax; PP = Tax Audit; SP = Tax Penalties; SOS = Tax Awareness Campaign; KWP = Taxpayer Compliance.

Source: SmartPLS 4, Author's own analysis (2026)

Inner Model Evaluation

An internal model evaluation was conducted to assess the relationships among latent variables in the research model. Based on the test results in Table 5, all research hypotheses showed positive and significant relationships. The implementation of Coretax has a positive effect on taxpayer compliance, with a path coefficient of 0.224, a T-statistic of 3.330, and a P-value of 0.001. Tax audits have a positive effect, with a path coefficient of 0.327, a T-statistic of 6.666, and a P-value of 0.000. Furthermore, tax sanctions have a positive effect on taxpayer compliance, with a path coefficient of 0.221, a T-statistic of 4.136, and a P-value of 0.000, while tax outreach programs show a positive effect with a path coefficient of 0.378, a T-statistic of 3.905, and a P-value of 0.000. The results of the model fit tests indicate that the model meets the acceptability criteria. The SRMR value of 0.057 is below the maximum threshold of 0.09, indicating a "good fit." Furthermore, the Chi-Square value of 478.806 and the NFI value of 0.812—both of which exceed the minimum threshold of 0.60—indicate that the model has a good level of fit and is acceptable for explaining the relationships among the variables in this study (Henseler & Sarstedt, 2021).

Furthermore, the results of the evaluation of the model's predictive ability show that the Taxpayer Compliance variable has an Adjusted R-Square value of 0.802. This value indicates that 80.2% of the variation in Taxpayer Compliance can be explained by the variables Coretax Implementation, Tax Audits, Tax Penalties, and Tax Outreach, while the remaining 19.8% is

explained by other factors outside the research model. Based on the effect size (F-square) values, the effect of Coretax Implementation on Taxpayer Compliance is 0.165, that of Tax Audits is 0.402, that of Tax Penalties is 0.166, and that of Tax Outreach is 0.339. These results indicate that tax audits and tax outreach have a relatively greater impact than the other variables on improving taxpayer compliance (J. F. Hair et al., 2022).

Table 5. Inner Model

Hypothesis	Path coefficient	T-Statistic	P-Values
H1: PC→KWP	0.224	3.330	0.001
H2: PP→KWP	0.327	6.666	0.000
H3: SP→KWP	0.221	4.136	0.000
H4: SOS→KWP	0.378	3.905	0.000
Model Fit	Limit	Saturated Model	Description
SRMR	<0.09	0.057	Good Fit
Chi-Square	>0.05	478.806	Good Fit
NFI	>0.60	0.812	Acceptable
Endogenous Variables	Adjusted R-Square	Variabel	F-Square
Taxpayer Compliance	0.802	PC→KWP PP→KWP SP→KWP SOS→KWP	0.165 0.402 0.166 0.339

Note : PC = Implementation of Coretax; PP = Tax Audit; SP = Tax Penalties; SOS = Tax Awareness Campaign; KWP = Taxpayer Compliance.

Source: SmartPLS 4, Author's own analysis (2026)

The f^2 values indicate that Coretax Implementation (0.08) has a small effect, Tax Audits (0.14) have a small-to-medium effect, Tax Penalties (0.09) have a small effect, while Tax Awareness Campaign (0.26) has a medium effect. Therefore, although all variables significantly influence taxpayer compliance, taxpayer awareness provides the strongest practical contribution to explaining compliance behavior.

Discussion

The test results in Table 5 show that the implementation of Coretax has a positive and significant effect on taxpayer compliance, thus supporting the first hypothesis. This is indicated by a path coefficient of 0.224, a T-statistic of 3.330, and a P-value of 0.001. These findings suggest that the better taxpayers perceive the implementation of Coretax to be, the higher their level of compliance in fulfilling their tax obligations. The ease of access to services,

data integration, transparency of information, and administrative efficiency offered by Coretax encourage taxpayers to fulfill their obligations more promptly and accurately. These research results align with the finding that the convenience and benefits derived from using Coretax encourage taxpayers to be more compliant with their tax obligations. These findings also support the results of studies by Dhaliwal et al. (2023), Ilyas et al. (2025), and Musseng et al. (2023), which found that the modernization and digitization of tax administration systems have a positive effect on increasing taxpayer compliance.

The results of the second hypothesis test indicate that tax audits have a positive and significant effect on taxpayer compliance, with a path coefficient of 0.327, a T-statistic of 6.666, and a P-value of 0.000. This coefficient value indicates that tax audits are one of the factors that contribute significantly to improving taxpayer compliance. The more effectively tax audits are conducted by tax authorities, the greater the tendency for taxpayers to fulfill their tax obligations in accordance with applicable regulations. This finding supports Compliance Theory, which explains that compliance can be fostered through oversight and control mechanisms implemented by authorities. The possibility of being audited makes taxpayers more cautious in reporting and paying taxes, thereby minimizing non-compliant behavior. The results of this study are consistent with the research by Bugaje et al. (2023), Gulzar et al. (2024), Muttiwijaya et al. (2025), which concluded that tax audits have a positive and significant effect on taxpayer compliance.

Furthermore, tax penalties have a positive and significant effect on taxpayer compliance, with a path coefficient of 0.221, a T-statistic of 4.136, and a P-value of 0.000. These results indicate that the existence of strict tax penalties that are consistently enforced can increase taxpayer compliance. Taxpayers tend to consider the consequences they will face if they fail to fulfill their tax obligations, thereby motivating them to comply with applicable regulations. This finding aligns with the concept of the deterrent effect in Compliance Theory, which states that the threat of punishment or sanctions can serve as an instrument for controlling individual behavior. The higher the perceived risk resulting from tax violations, the greater the tendency for taxpayers to act in compliance. The results of this study support the findings of Kushwah et al. (2021) and Larasdiputra & Saputra (2021), who state that tax

sanctions have a positive effect on improving taxpayer compliance, both formally and materially.

Based on the analysis results, tax penalties have a positive and significant effect on taxpayer compliance, with a path coefficient of 0.221, a T-statistic of 4.136, and a P-value of 0.000. These results indicate that the existence of strict tax penalties that are consistently enforced can increase taxpayer compliance. Taxpayers tend to consider the consequences they will face if they fail to fulfill their tax obligations, thereby motivating them to comply with applicable regulations. This finding aligns with the concept of the deterrent effect in Compliance Theory, which states that the threat of punishment or sanctions can serve as an instrument for controlling individual behavior. The higher the perceived risk resulting from tax violations, the greater the tendency for taxpayers to act in compliance. The results of this study support the findings of Fadhilatunisa & Alisyahbana (2024), Gitaru (2017), and Purnamasari et al. (2024), who state that tax sanctions have a positive effect on improving taxpayer compliance, both formally and materially.

The test results show that Tax Education has a positive and significant effect on Taxpayer Compliance, with a path coefficient of 0.378, a T-statistic of 3.905, and a P-value of 0.000. Compared to other variables, tax outreach has the largest path coefficient, indicating that increasing taxpayers' understanding and awareness through various educational activities plays a crucial role in shaping compliance behavior. Through effective outreach, taxpayers gain information about their rights, obligations, and changes in tax regulations, enabling them to fulfill their obligations more effectively. These findings are consistent with the Theory of Planned Behavior (TPB) (Fishbein & Ajzen, 2011), which explains that individual behavior is influenced by attitudes, subjective norms, and perceived behavioral control.

Tax outreach can enhance taxpayers' knowledge and understanding, thereby fostering a positive attitude toward tax obligations and ultimately encouraging compliant behavior. These findings also support the research by Fadhilatunisa & Alisyahbana (2024) and Larasdiputra & Saputra (2021), which found that tax outreach has a positive and significant effect on improving taxpayer compliance. Overall, the results of this study reinforce the argument that a combination of digital transformation through Coretax, oversight through tax audits, law enforcement through tax penalties, and education

through tax outreach are key factors capable of increasing the compliance rate of individual taxpayers at the Medan Polonia Primary Tax Office.

4. Conclusion

Based on the research findings, it can be concluded that the implementation of Coretax, tax audits, tax penalties, and tax outreach have a positive and significant impact on individual taxpayer compliance at the Medan Polonia Primary Tax Office. The research results show that tax outreach has the greatest influence on taxpayer compliance, followed by tax audits, the implementation of Coretax, and tax penalties. Furthermore, an Adjusted R-Square value of 0.802 indicates that the research model explains 80.2% of the variation in taxpayer compliance, demonstrating strong predictive power. These findings confirm that improving taxpayer compliance is not only influenced by digital transformation through Coretax but also requires effective oversight, consistent law enforcement, and ongoing tax education.

This study has several limitations that should be noted. First, the study was conducted during the early stages of Coretax implementation, so taxpayers' perceptions and experiences with the system were still in the adaptation phase. This situation allows for changes in taxpayers' views and compliance behavior as the implementation of the Coretax system matures in the future. Second, the study focused only on individual taxpayers registered at the Medan Polonia Tax Office (KPP Pratama), so the characteristics of the respondents may not fully represent the conditions of taxpayers in other regions or other types of taxpayers. Therefore, the results of this study should be interpreted in the context of the study location and the period of Coretax implementation under examination.

Based on the research findings and existing limitations, it is recommended that the Directorate General of Taxes, particularly the Medan Polonia Tax Office, continue to optimize the implementation of Coretax by improving system quality, ease of access, and assistance to taxpayers. In addition, the intensity of tax outreach efforts needs to be increased, as it has been proven to have a significant impact on taxpayer compliance, accompanied by consistent tax audits and the enforcement of penalties to foster sustainable compliance. For future researchers, it is recommended to expand the scope of the study area, increase the sample size, and include other relevant variables to gain a more

comprehensive understanding of the factors influencing taxpayer compliance in the era of digital tax transformation.

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