

## Core Tax Administration System and Taxpayer Compliance in the Digital Era

Mariana Saloso<sup>1</sup>, Roberth Kurniawan Ruslak Hammar<sup>1</sup>

<sup>1</sup>Universitas Caritas Indonesia

\*Corresponding Author: Mariana Saloso

Email: [rianasalosso@gmail.com](mailto:rianasalosso@gmail.com)

---

### Article Info

#### Article History:

Received May 20, 2026

Revised June 10, 2026

Accepted: July 7, 2026

#### Keywords:

Core Tax Administration System, Taxpayer Compliance, Digital Taxation.

### Abstract

*The rapid advancement of digital technologies has encouraged governments worldwide to modernize tax administration systems to improve efficiency, transparency, and taxpayer compliance. In Indonesia, the Directorate General of Taxes has introduced the Core Tax Administration System (CTAS), an integrated digital platform designed to consolidate various tax administration functions within a unified ecosystem. This study aims to examine the effect of CTAS implementation on taxpayer compliance in the digital era. A quantitative explanatory research design was employed, involving 110 registered taxpayers at the Primary Tax Office in Manokwari, West Papua, Indonesia. Data were collected through structured questionnaires and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4 software. The measurement model evaluation demonstrated satisfactory validity and reliability, with all indicators meeting the required thresholds for outer loading, Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha. The structural model results revealed that CTAS implementation has a positive and statistically significant effect on taxpayer compliance ( $\beta = 0.741$ ;  $T = 12.483$ ;  $p < 0.001$ ). The coefficient of determination ( $R^2 = 0.549$ ) indicates that CTAS explains 54.9% of the variance in taxpayer compliance. Furthermore, the effect size ( $f^2 = 1.216$ ) suggests a substantial contribution of CTAS to compliance behavior. These findings indicate that integrated digital tax administration systems can enhance taxpayer compliance by improving accessibility, reliability, service quality, security, and administrative efficiency. The study concludes that CTAS represents an important instrument for supporting tax administration modernization and promoting voluntary compliance. Future policies should complement technological innovation with taxpayer education, digital literacy programs, and service quality improvements to maximize the benefits of digital taxation reforms.*

---

## Introduction

Digital transformation has become a central agenda in contemporary public sector reform, fundamentally reshaping the way governments deliver services, manage information, and interact with citizens. Within taxation administration, digitalization has emerged as a strategic response to the increasing complexity of economic activities, growing volumes of taxpayer data, and the need for more efficient revenue collection mechanisms. Tax authorities across the world have invested heavily in digital tax administration systems to enhance transparency, strengthen compliance monitoring, reduce administrative burdens, and improve service quality (OECD, 2022; Alm & Torgler, 2020). The rapid expansion of digital economies has further accelerated these initiatives, compelling governments to adopt integrated technological infrastructures capable of supporting real-time data management and evidence-based tax administration.

Previous studies generally suggest that digital taxation systems contribute positively to taxpayer compliance by simplifying administrative procedures, reducing compliance costs, and

increasing service accessibility (Rosyid et al., 2024; Muttiwijaya et al., 2025). Digital platforms enable taxpayers to submit returns, make payments, and access taxation information more efficiently than traditional manual procedures. Consequently, digitalization is frequently associated with improved compliance outcomes and stronger fiscal governance. However, empirical evidence remains far from unanimous. Several studies have reported that technological reforms do not automatically generate higher compliance levels, particularly when taxpayers experience difficulties related to digital literacy, system usability, infrastructure limitations, or trust in government technologies (Wahyuningtyas & Budiman, 2025; Hidayat & Inayati, 2025). These contrasting findings indicate that the relationship between digital taxation systems and taxpayer compliance is more complex than often portrayed and remains highly dependent on institutional, technological, and behavioral contexts.

In Indonesia, taxation modernization has entered a new phase through the implementation of the Core Tax Administration System (CTAS), a large-scale reform initiative introduced by the Directorate General of Taxes. CTAS represents a significant departure from previous generations of digital tax services because it is designed not merely as an electronic service application but as an integrated administrative ecosystem that consolidates taxpayer registration, tax return processing, payment administration, audit management, compliance monitoring, dispute handling, and taxpayer database management into a unified platform (Rahmi et al., 2023; Hidayat & Inayati, 2025). Unlike earlier systems such as e-Filing, which primarily facilitated online tax return submission, or e-Billing, which focused on digital payment processing, CTAS integrates multiple administrative functions within a centralized architecture. This integration enables greater interoperability among taxation functions, real-time information exchange, and enhanced analytical capabilities for compliance supervision (Dimetheo, 2023; Korat & Munandar, 2025).

The distinction between CTAS and earlier digital taxation services is particularly important because much of the existing literature has concentrated on isolated electronic services rather than integrated taxation ecosystems. Research examining e-Filing, e-Billing, and other online tax applications generally reports positive effects on taxpayer convenience and administrative efficiency (Rosyid et al., 2024; Haryanti et al., 2022). Nevertheless, these systems operate within specific functional domains and do not fully capture the organizational transformation represented by CTAS. As an integrated platform, CTAS seeks to restructure the entire taxation administration process rather than simply digitize individual services. Consequently, findings derived from studies of partial digital services cannot automatically be generalized to the CTAS environment, where broader issues of system integration, data governance, institutional readiness, and user adaptation become increasingly relevant.

The implementation of CTAS has also introduced new opportunities and challenges for tax administration in Indonesia. On one hand, integrated digital systems can enhance efficiency, improve data accuracy, strengthen risk-based supervision, and facilitate taxpayer interactions with tax authorities (OECD, 2022; Muttiwijaya et al., 2025). On the other hand, the transition toward a fully integrated digital ecosystem requires substantial technological readiness from both institutions and taxpayers. Studies on digital governance reforms consistently demonstrate that technological innovations often encounter barriers related to infrastructure quality, cybersecurity concerns, organizational adaptation, and disparities in digital capabilities among users (Wahyuningtyas & Budiman, 2025; Hidayat & Inayati, 2025). In developing economies, where digital literacy and technological access remain uneven, these challenges may significantly affect the effectiveness of taxation modernization initiatives.

The behavioral dimension of taxation digitalization is particularly important because compliance ultimately depends on how taxpayers interact with and respond to technological systems. Research on technology adoption suggests that users are more likely to engage with digital systems when they perceive them as useful, reliable, and easy to utilize (Davis, 1989). In taxation contexts, these perceptions may influence the willingness of taxpayers to fulfill their obligations through digital channels. However, the influence of technological acceptance on compliance behavior remains indirect and contingent upon broader institutional conditions. A technologically sophisticated system may fail to improve compliance if taxpayers perceive it as complicated, unreliable, or inaccessible. Conversely, positive perceptions of system effectiveness can encourage greater participation and compliance by reducing procedural barriers and increasing confidence in administrative processes (Mutammimah et al., 2025; Muttiwijaya et al., 2025).

Despite growing scholarly attention to digital taxation, several important gaps remain in the literature. First, most existing studies continue to focus on specific digital services such as e-Filing, e-Billing, or online tax reporting systems, while empirical investigations examining integrated taxation platforms such as CTAS remain limited (Dimetheo, 2023; Korat & Munandar, 2025). Second, previous research predominantly emphasizes administrative efficiency and regulatory outcomes, often overlooking how taxpayers respond to integrated taxation ecosystems that fundamentally alter interactions between citizens and tax authorities (Wulandari & Raharjo, 2026). Third, findings regarding the effectiveness of digital taxation reforms remain inconsistent (Jaeng et al., 2024; Ilyas et al., 2025). While many studies report positive compliance effects, others highlight implementation difficulties arising from technological adaptation challenges, digital literacy limitations, and infrastructure constraints (Puteri et al., 2024; Wahyuningtyas & Budiman, 2025; Hidayat & Inayati, 2025). These inconsistencies suggest that the compliance implications of large-scale integrated systems such as CTAS cannot be assumed and require further empirical verification.

Addressing these gaps is important because CTAS represents one of the most ambitious taxation modernization programs undertaken in Indonesia. Understanding whether the implementation of an integrated taxation ecosystem contributes to taxpayer compliance provides valuable insights for both taxation policy and digital governance scholarship (Siagian, 2025). Beyond evaluating administrative efficiency, examining CTAS allows researchers to assess whether comprehensive digital transformation can effectively support compliance behavior within a rapidly evolving technological environment. Such evidence is particularly relevant as governments increasingly rely on digital infrastructures to strengthen fiscal capacity, improve public service delivery, and sustain long-term taxation performance in the digital era (OECD, 2022; Alm & Torgler, 2020; Rahmi et al., 2023).

## **Method**

### **Research Design**

This study employed a quantitative explanatory research design to examine the effect of the Core Tax Administration System (CTAS) on taxpayer compliance in the digital era. An explanatory approach was considered appropriate because the primary objective of the study was to investigate the causal relationship between the implementation of an integrated digital tax administration system and taxpayer compliance behaviour. Quantitative research enables objective measurement of relationships among variables through statistical procedures and provides empirical evidence regarding the magnitude and significance of the proposed relationship. The study was conducted within the context of Indonesia's ongoing taxation

digitalization reform, where CTAS has been introduced as a comprehensive platform integrating various taxation administration functions into a single digital ecosystem.

The unit of analysis consisted of individual taxpayers who actively interact with digital taxation services. The study focused on taxpayer perceptions regarding the implementation of CTAS and how these perceptions influence their compliance behaviour. The research model included one exogenous variable, namely Core Tax Administration System implementation, and one endogenous variable, namely taxpayer compliance.

### **Research Location and Population**

The study was conducted at the Primary Tax Office (Kantor Pelayanan Pajak Pratama) in Manokwari City, West Papua, Indonesia. The selection of this location was based on the ongoing implementation of digital taxation services and the increasing utilization of electronic tax administration systems among registered taxpayers. As one of the regional taxation offices implementing Indonesia's taxation modernization agenda, the Manokwari Tax Office provides an appropriate context for evaluating taxpayer responses to integrated digital taxation systems.

The target population consisted of registered taxpayers who actively utilized digital taxation services, including electronic tax reporting, digital tax payment systems, and other online taxation facilities provided by the Directorate General of Taxes. Since the study aimed to evaluate the effectiveness of CTAS implementation, only taxpayers who had previous experience interacting with digital taxation systems were considered relevant members of the research population. This criterion ensured that respondents possessed sufficient knowledge and experience to evaluate the functionality and effectiveness of integrated digital tax administration services.

### **Sampling Technique and Sample Size**

This study employed a non-probability purposive sampling technique. Purposive sampling was selected because not all registered taxpayers possessed adequate experience with digital taxation systems or were familiar with CTAS-related services. Therefore, respondents were selected based on specific eligibility criteria to ensure the quality and relevance of the collected data.

The inclusion criteria required respondents to: (1) be registered taxpayers at the Primary Tax Office in Manokwari City; (2) have previously utilized digital taxation services such as electronic tax reporting or digital tax payment systems; (3) possess basic knowledge regarding digital tax administration procedures; and (4) actively perform taxation obligations through electronic platforms. These criteria were established to ensure that respondents could provide informed assessments regarding the implementation of CTAS and its implications for taxpayer compliance.

The determination of sample size followed the recommendation of Hair et al. (2021), who suggest that the minimum sample size in SEM-PLS studies should be between five and ten times the total number of indicators used in the measurement model. The present study employed eleven measurement indicators across two latent constructs. Based on the ten-times rule, a minimum sample of 110 respondents was required. Accordingly, questionnaires were distributed to 110 eligible taxpayers who satisfied the established selection criteria.

### **Data Collection Procedure**

Primary data were collected using a structured questionnaire designed to capture respondents' perceptions regarding CTAS implementation and taxpayer compliance behaviour. The questionnaire was distributed both directly and electronically to facilitate broader participation

and increase response rates. Prior to full-scale data collection, the questionnaire was reviewed to ensure clarity, comprehensibility, and relevance to the study objectives.

Respondents were informed about the purpose of the study and assured that all responses would remain confidential and be used exclusively for academic research purposes. Participation was voluntary, and respondents were allowed to withdraw from the survey at any stage without consequence. These procedures were implemented to maintain ethical standards and enhance the reliability of the collected data.

All questionnaire items were measured using a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). The use of a Likert scale enabled the quantification of subjective perceptions and facilitated subsequent statistical analysis.

### **Measurement of Variables**

The independent variable in this study was Core Tax Administration System implementation. This construct reflects taxpayers’ perceptions regarding the effectiveness and functionality of the integrated digital taxation system. The measurement indicators included perceived ease of use, system reliability, digital service quality, data integration capability, accessibility, and system security. These indicators were adapted from previous studies on technology adoption, digital public services, and taxation digitalization literature. Collectively, these dimensions capture the extent to which taxpayers perceive CTAS as an effective and efficient taxation administration platform.

The dependent variable was taxpayer compliance. This construct represents the extent to which taxpayers fulfill their taxation obligations in accordance with prevailing regulations. Taxpayer compliance was measured through indicators including compliance in tax reporting, accuracy of tax payment, timeliness in fulfilling tax obligations, administrative compliance, and taxpayer awareness of taxation responsibilities. These indicators were adapted from established taxation compliance literature and reflect both procedural and behavioural dimensions of compliance.

### **Data Analysis Technique**

Data analysis was performed using Structural Equation Modelling–Partial Least Squares (SEM-PLS) with SmartPLS 4 software. SEM-PLS was selected because it is particularly suitable for examining relationships among latent variables, handling relatively small to moderate sample sizes, and accommodating data that may not satisfy strict multivariate normality assumptions. Furthermore, SEM-PLS enables simultaneous assessment of measurement quality and structural relationships within a single analytical framework.

The analysis was conducted in two sequential stages: measurement model evaluation and structural model evaluation.

The measurement model assessment focused on evaluating the validity and reliability of the research instruments. Convergent validity was assessed through outer loading and Average Variance Extracted (AVE) values. Outer loading values greater than 0.70 and AVE values exceeding 0.50 indicate that indicators adequately represent their respective constructs. Discriminant validity was evaluated using the Fornell–Larcker Criterion to confirm that each construct possesses sufficient distinctiveness from other constructs in the model. Reliability assessment was conducted using Composite Reliability and Cronbach’s Alpha coefficients, with values above 0.70 indicating satisfactory internal consistency.

Following the confirmation of measurement quality, the structural model was evaluated to assess the hypothesized relationship between CTAS implementation and taxpayer compliance. The evaluation included analysis of path coefficients, coefficient of determination ( $R^2$ ), effect

size ( $f^2$ ), predictive relevance ( $Q^2$ ), and model fit indicators. The coefficient of determination was used to assess the explanatory power of the model, while effect size measured the substantive contribution of the independent variable to the dependent variable. Predictive relevance was evaluated using the blindfolding procedure to determine the model's predictive capability.

Hypothesis testing was conducted using the bootstrapping procedure with 5,000 resamples. The significance of the hypothesized relationship was determined based on T-statistic and p-value criteria. A path relationship was considered statistically significant when the T-statistic exceeded 1.96 and the p-value was below 0.05. Through this analytical procedure, the study sought to provide robust empirical evidence regarding the effectiveness of CTAS implementation in promoting taxpayer compliance within Indonesia's digital taxation environment.

## Result and Discussion

The results of this study are presented through the evaluation of both the measurement model and the structural model using the SEM-PLS approach. The measurement model assessment was conducted to examine the validity and reliability of the research instruments, including convergent validity, discriminant validity, and internal consistency reliability. Subsequently, the structural model evaluation was performed to assess the explanatory power of the model and test the proposed hypothesis regarding the influence of the Core Tax Administration System (CTAS) on taxpayer compliance. The findings provide empirical evidence regarding the effectiveness of integrated digital tax administration systems in supporting taxpayer compliance within Indonesia's digital taxation environment.

Table 1. Outer Loading

Variables	Indicator	Outer Loading	Information
Core Tax Administration System	CT1	0.782	Valid
	CT2	0.814	Valid
	CT3	0.856	Valid
	CT4	0.791	Valid
	CT5	0.826	Valid
	CT6	0.774	Valid
Taxpayer Compliance	TC1	0.842	Valid
	TC2	0.869	Valid
	TC3	0.831	Valid
	TC4	0.792	Valid
	TC5	0.847	Valid

Source: SmartPLS 4 data processing results (2026).

The outer loading values ranged from 0.774 to 0.869, exceeding the recommended threshold of 0.70. These results indicate that all indicators adequately represent their respective latent constructs and satisfy the requirements for convergent validity. Within the CTAS construct, indicator CT3 exhibited the highest loading value (0.856), suggesting that this aspect is particularly important in shaping taxpayers' perceptions of the integrated taxation system. Similarly, TC2 showed the highest contribution to taxpayer compliance (0.869), indicating that this indicator strongly reflects compliance behaviour. Overall, the findings demonstrate that respondents consistently perceived the dimensions of CTAS and taxpayer compliance as coherent and measurable constructs.

Table 2. AVE, Composite Reliability, and Cronbach's Alpha

Variables	AVE	Composite Reliability	Cronbach's Alpha
Core Tax Administration System	0.654	0.919	0.894
Taxpayer Compliance	0.703	0.922	0.894

Source: SmartPLS 4 data processing results (2026).

The AVE values for CTAS (0.654) and taxpayer compliance (0.703) exceeded the recommended threshold of 0.50, indicating that each construct explains more than half of the variance in its indicators. Furthermore, Composite Reliability values exceeded 0.90, while Cronbach's Alpha values were above 0.80 for both constructs. These findings confirm strong internal consistency and demonstrate that the measurement instruments are reliable for capturing taxpayers' perceptions regarding digital taxation systems and compliance behaviour.

Table 3. Fornell-Larcker Criterion

Variables	Core Tax Administration System	Taxpayer Compliance
Core Tax Administration System	0.808	
Taxpayer Compliance	0.741	0.838

Source: SmartPLS 4 data processing results (2026).

The square root of AVE for CTAS (0.808) and taxpayer compliance (0.838) exceeded the correlation value between the constructs (0.741). This result confirms satisfactory discriminant validity and indicates that CTAS implementation and taxpayer compliance represent empirically distinct concepts. Although both constructs are strongly related, they do not measure the same phenomenon. Therefore, the subsequent structural analysis can be interpreted with confidence that the observed relationship is not caused by construct overlap.

Table 4. R-Square

Endogenous Variable	R <sup>2</sup> / R <sup>2</sup> Adjusted	Category
Taxpayer Compliance	0.549 / 0.544	Moderate

Source: SmartPLS 4 data processing results (2026).

The R<sup>2</sup> value of 0.549 indicates that CTAS implementation explains 54.9% of the variance in taxpayer compliance. This result demonstrates moderate explanatory power and suggests that the integrated digital taxation system constitutes an important determinant of compliance behaviour. However, approximately 45.1% of the variance remains unexplained, indicating that taxpayer compliance is also influenced by other factors not included in the model, such as tax knowledge, tax morale, trust in government, perceived fairness, enforcement mechanisms, and service satisfaction.

Table 5. Effect Size ( $f^2$ )

Variable Relationship	$f^2$	Category
Core Tax Administration System → Taxpayer Compliance	1.216	Large

Source: SmartPLS 4 data processing results (2026).

The obtained  $f^2$  value of 1.216 substantially exceeds the threshold for a large effect (0.35), indicating that CTAS plays a highly influential role within the proposed model. Nevertheless, this exceptionally large effect should be interpreted cautiously. Since the model contains only one predictor variable, the magnitude of the effect may be amplified by the absence of other relevant determinants of taxpayer compliance. Therefore, the result should be interpreted as evidence of the substantial contribution of CTAS rather than proof that technological factors alone determine taxpayer compliance.

Table 6. Predictive Relevance ( $Q^2_{predict}$ )

Indicator	$Q^2_{predict}$
TC1	0.472
TC2	0.518
TC3	0.441
TC4	0.397
TC5	0.486

Source: SmartPLS 4 data processing results (2026).

All  $Q^2_{predict}$  values are greater than zero, indicating that the model possesses predictive relevance for all taxpayer compliance indicators. The highest predictive relevance was observed for TC2 (0.518), while TC4 exhibited the lowest value (0.397). These findings suggest that the model has adequate capability to predict taxpayer compliance behaviour. However, because no comparison with benchmark prediction models was conducted, the predictive performance should be interpreted as acceptable rather than exceptional.

Table 7. Model Fit (SRMR)

Model Fit Indicator	Value
SRMR	0.076

Source: SmartPLS 4 data processing results (2026).

The SRMR value of 0.076 is below the recommended threshold of 0.10, indicating a satisfactory model fit. This result suggests that the discrepancy between the observed data and the model-implied covariance matrix is relatively small. Therefore, the proposed structural model can be considered appropriate for examining the relationship between CTAS implementation and taxpayer compliance.

Table 8. Path Coefficients

Variable Relationship	$\beta$	T-Statistic	p-value	Result
Core Tax Administration System → Taxpayer Compliance	0.741	12.483	0.000	Significant

Source: SmartPLS 4 data processing results (2026).

The results indicate that CTAS implementation exerts a positive and statistically significant effect on taxpayer compliance ( $\beta = 0.741$ ;  $T = 12.483$ ;  $p < 0.001$ ). The positive coefficient suggests that improvements in taxpayers' perceptions of accessibility, reliability, security, service quality, and system integration are associated with higher levels of compliance. In practical terms, taxpayers are more likely to fulfill their tax obligations when digital taxation systems are perceived as efficient, trustworthy, and capable of simplifying administrative procedures. The findings therefore provide empirical evidence that integrated digital taxation systems contribute positively to taxpayer compliance in the context of Indonesia's ongoing taxation modernization reform.

### **The Role of Core Tax Administration System in Enhancing Taxpayer Compliance**

The significance of this study lies not merely in demonstrating that a digital taxation system is associated with higher taxpayer compliance, but in illustrating a broader managerial transformation occurring within public revenue administration. Contemporary tax reform is increasingly characterized by a shift from rule-based administration toward data-driven governance, where compliance is shaped not only through enforcement mechanisms but also through the quality of interactions between taxpayers and digital public service infrastructures. In this context, CTAS should not be viewed simply as a technological innovation. Rather, it represents an organizational capability that restructures information flows, administrative processes, and service delivery mechanisms within the taxation system. Similar arguments have been advanced in studies of digital government transformation, which suggest that the effectiveness of public sector digitalization depends less on technology itself and more on how technology redesigns administrative relationships and institutional processes (Heuberger, 2022; Wandaogo, 2022; Di Giulio & Vecchi, 2023; Kitsios et al., 2023; ).

A notable implication emerging from this study concerns the changing nature of compliance management. Traditional taxation systems have historically relied upon audits, penalties, and regulatory enforcement to secure compliance. However, recent scholarship increasingly argues that sustainable compliance is more effectively achieved through reducing administrative burdens and facilitating voluntary compliance behaviour (Truong et al., 2024; Prencipe, 2025; Adekemi, 2025; Golzarjannat & Gustafsson, 2025). The implementation of integrated digital taxation systems aligns with this perspective because it addresses one of the most persistent obstacles in tax administration: procedural complexity. When taxpayers encounter fragmented systems, duplicated reporting requirements, inconsistent databases, and time-consuming administrative procedures, compliance costs increase substantially. Under such conditions, non-compliance may emerge not solely from deliberate avoidance but also from administrative friction. Consequently, integrated systems such as CTAS can be understood as managerial instruments that reduce friction costs within taxpayer-government interactions, thereby creating conditions that facilitate compliance behaviour.

The findings also contribute to ongoing debates regarding the role of digitalization in public value creation. Much of the early e-government literature assumed that technological modernization would automatically improve public sector performance. Subsequent evidence, however, has demonstrated that digital technologies generate public value only when they enhance accessibility, responsiveness, transparency, and citizen experience simultaneously (MacLean & Titah, 2022; Scupola & Mergel, 2022; Meijer & Boon, 2024; Lee et al., 2024). The present study supports this latter perspective. The importance of CTAS appears to derive not from digitization itself but from its capacity to integrate multiple administrative functions into a coherent service ecosystem. This distinction is critical because governments frequently mistake technological adoption for digital transformation. Installing new technologies does not

necessarily transform institutions; transformation occurs when technology fundamentally improves how public organizations coordinate resources, process information, and deliver services.

At the same time, it would be overly optimistic to interpret digital taxation reform as an inherently beneficial process. A recurring weakness within digital governance literature is the assumption that technological advancement produces universally positive outcomes. Such assumptions overlook the uneven distribution of digital capabilities among citizens. Studies consistently show that digital transformation often generates new forms of exclusion, particularly among older populations, individuals with limited digital literacy, and communities facing technological constraints (Tomczyk et al., 2023; Wanka et al., 2023; Ge et al., 2025; Fang et al., 2026). From this perspective, integrated taxation systems may simultaneously enhance efficiency for digitally capable taxpayers while creating additional challenges for vulnerable groups. The pursuit of efficiency can therefore produce unintended consequences if accessibility considerations are subordinated to technological sophistication. Policymakers should recognize that successful digital taxation reform requires balancing operational efficiency with inclusiveness.

This issue is particularly relevant because taxation compliance is not merely a technological phenomenon but also a behavioural and social one. Decades of tax compliance research demonstrate that compliance is influenced by a complex combination of trust, perceived fairness, tax morale, institutional legitimacy, social norms, and service experiences. Consequently, integrated taxation systems should not be viewed as substitutes for broader compliance strategies. Digital platforms may simplify procedures, but they cannot independently generate taxpayer trust or strengthen perceptions of institutional legitimacy (Belahouaoui & Attak, 2025; Sonnerfeldt, 2025; Purba & Triwibowo, 2025; Kunwar, 2026). Effective compliance management therefore requires integrating technological modernization with communication strategies, taxpayer education programs, service quality improvements, and trust-building initiatives. The managerial challenge is not simply to digitize taxation processes but to embed digital systems within broader institutional relationships that encourage cooperative compliance.

The study further raises important questions regarding how governments evaluate the success of digital transformation initiatives. Public sector organizations frequently assess digital reforms through operational indicators such as processing speed, transaction volume, system uptime, or cost efficiency. While these metrics remain important, they provide only a partial picture of performance. Recent public management literature increasingly emphasizes citizen-centric evaluation frameworks that consider user experience, service accessibility, satisfaction, and trust outcomes alongside operational efficiency. The implications of the present findings suggest that future evaluations of CTAS should extend beyond technical performance indicators and examine whether the system improves taxpayers' experiences, perceptions of fairness, and willingness to engage voluntarily with taxation authorities.

From a policy perspective, the findings suggest that future investments should focus not only on technological infrastructure but also on user-centered service design. Governments often allocate substantial resources to developing sophisticated digital platforms while devoting comparatively less attention to user experience. Yet evidence from digital service management consistently demonstrates that usability, clarity, accessibility, and responsiveness are critical determinants of successful technology adoption. Rather than concentrating exclusively on system functionality, tax authorities should invest in intuitive interfaces, multilingual support systems, real-time assistance channels, simplified guidance materials, and targeted digital

literacy programs for taxpayers facing technological barriers. Such interventions may generate greater compliance gains than purely technical upgrades.

The findings should also be interpreted in light of several important limitations. First, the study relied exclusively on self-reported questionnaire responses collected from the same respondents at a single point in time. This design introduces the possibility of common method bias and social desirability bias. Taxpayer compliance is a sensitive issue, and respondents may have overstated their compliance behaviour to present themselves more favorably. Consequently, the observed relationships should be interpreted as perceptions of compliance rather than direct measures of actual compliance behaviour. Future studies should combine survey data with administrative taxation records or longitudinal compliance data to strengthen causal inference and reduce measurement bias.

Second, the generalizability of the findings remains limited. The study was conducted among 110 taxpayers registered at a single tax office in Manokwari. While these findings provide valuable insights into local experiences of taxation digitalization, caution should be exercised when extending the conclusions to the broader Indonesian taxpayer population. Regional disparities in infrastructure quality, digital readiness, educational attainment, and economic activity may significantly influence how taxpayers experience integrated digital taxation systems. Comparative studies across provinces and taxation offices would therefore provide a more comprehensive understanding of CTAS implementation outcomes.

Finally, the theoretical contribution of the study should be positioned realistically. Although the findings support the importance of integrated digital taxation systems, the research design does not directly test the mechanisms through which CTAS influences compliance behaviour. The model does not explicitly examine mediating variables such as trust, satisfaction, perceived usefulness, or perceived service quality, nor does it consider moderating factors such as age, education, digital literacy, or taxpayer experience. Consequently, the study contributes primarily by establishing an empirical association between integrated digital taxation systems and taxpayer compliance rather than by advancing a comprehensive behavioural theory. Future research should move beyond direct-effect models and investigate the organizational, psychological, and institutional mechanisms through which digital taxation reforms generate compliance outcomes.

## **Conclusion**

This study concludes that the implementation of the Core Tax Administration System (CTAS) has a positive and significant effect on taxpayer compliance in the digital era. The findings demonstrate that taxpayers who perceive CTAS as accessible, reliable, secure, and well-integrated are more likely to fulfill their tax obligations accurately and on time. The results indicate that CTAS contributes substantially to explaining variations in taxpayer compliance, highlighting the important role of integrated digital taxation systems in supporting Indonesia's tax administration modernization agenda. Beyond improving administrative efficiency, CTAS functions as a strategic instrument that reduces compliance burdens and facilitates taxpayer interactions with tax authorities. Nevertheless, taxpayer compliance remains influenced by other behavioral and institutional factors beyond technology alone. Therefore, the successful implementation of CTAS should be accompanied by efforts to enhance digital literacy, service quality, taxpayer education, and institutional trust to maximize the effectiveness of digital taxation reforms and promote sustainable voluntary compliance.

## References

- Adekemi, P. (2025). Review on the role of law in corporate sustainability and green practices. *Global Journal of Environmental Science & Sustainability*, 2(1), 1-8.
- Alm, J., & Torgler, B. (2020). *Tax compliance and digital tax administration*. Springer.
- Belahouaoui, R., & Attak, E. H. (2025). Exploring the relationship between taxpayers and tax authorities in the digital era: evidence on tax compliance behavior in emerging economies. *International Journal of Law and Management*, 67(6), 632-653. <https://doi.org/10.1108/IJLMA-02-2024-0064>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Di Giulio, M., & Vecchi, G. (2023). Implementing digitalization in the public sector. Technologies, agency, and governance. *Public Policy and Administration*, 38(2), 133-158. <https://doi.org/10.1177/09520767211023283>
- Dimetho, G. (2023). Implementasi core tax administration system sebagai upaya peningkatan kepatuhan pajak di Indonesia. *Prosiding Tax Center Universitas Negeri Malang*.
- Fang, Y., Shao, Y., & Wang, M. (2026). The involuntary experience of digital exclusion among older adults: A taxonomy and theoretical framework. *American Psychologist*, 81(3), 360. <https://doi.org/10.1037/amp0001502>
- Ge, H., Li, J., Hu, H., Feng, T., & Wu, X. (2025). Digital exclusion in older adults: A scoping review. *International Journal of Nursing Studies*, 168, 105082.
- Golzarjannat, A., & Gustafsson, R. (2025). Regulatory technologies for enhancing sustainability compliance: a multivocal literature review. *Journal of Financial Regulation and Compliance*. <https://doi.org/10.1108/JFRC-04-2025-0074>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage Publications.
- Haryanti, M. D., Pitoyo, B. S., & Napitupulu, A. (2022). Pengaruh modernisasi administrasi perpajakan, pengetahuan perpajakan, sosialisasi perpajakan, dan sanksi perpajakan terhadap kepatuhan wajib pajak orang pribadi di wilayah Kabupaten Bekasi. *Jurnal Akuntansi dan Perpajakan Jayakarta*, 3(2), 108-130. <https://doi.org/10.53825/japjayakarta.v3i02.105>
- Heuberger, M. (2022). *Coordinating digital government: Explaining coordination challenges regarding the digital transformation of public administration in a federal context* (Doctoral dissertation, Universität Potsdam). <https://doi.org/10.3390/su17209305>
- Hidayat, A. K. W., & Inayati, I. (2025). Implementation of the Core Tax System: Impacts and challenges on tax revenue in Indonesia. *Journal Transnational Universal Studies*, 3(6), 1-8. <https://doi.org/10.58631/jtus.v3i6.168>
- Ilyas, H. T., Devano, S. D., & Herdianti, S. H. (2025). The effect of tax planning and the implementation of the Core Tax Administration System on taxpayer compliance. *Eduvest-Journal of Universal Studies*, 5(3), 3326-3338. <https://doi.org/10.59188/eduvest.v5i3.44798>

- Jaeng, T. Y., & Yadnyana, I. K. (2024). Pengaruh kesadaran wajib pajak, pengetahuan perpajakan, dan kualitas pelayanan terhadap kepatuhan wajib pajak hotel di Kabupaten Sikka, NTT. *Owner: Riset dan Jurnal Akuntansi*, 8(1), 509–521. <https://doi.org/10.33395/owner.v8i1.1818>
- Kitsios, F., Kamariotou, M., & Mavromatis, A. (2023). Drivers and outcomes of digital transformation: The case of public sector services. *Information*, 14(1), 43. <https://doi.org/10.3390/info14010043>
- Korat, C., & Munandar, A. (2025). Penerapan Core Tax Administration System (CTAS): Langkah meningkatkan kepatuhan perpajakan di Indonesia. *Jurnal Riset Akuntansi Politala*, 8(1), 16–29. <https://doi.org/10.34128/jra.v8i1.453>
- Kunwar, K. S. (2026). Algorithmic Tax Governance and Compliance Behavior: Evaluating the Impact of Digital Tax Systems on Fiscal Capacity and Public Trust in Developing Economies. *Journal of Applied Taxation and Policy*, 10-28. <https://doi.org/10.66053/jatap.v2i1.411>
- Lee, J. Y., Kim, B., & Yoon, S. H. (2024). A conceptual digital policy framework via mixed-methods approach: Navigating public value for value-driven digital transformation. *Government Information Quarterly*, 41(3), 101961.
- MacLean, D., & Titah, R. (2022). A systematic literature review of empirical research on the impacts of e-government: a public value perspective. *Public Administration Review*, 82(1), 23-38. [https://doi.org/10.1111/puar.13413Digital%20Object%20Identifier%20\(DOI\)](https://doi.org/10.1111/puar.13413Digital%20Object%20Identifier%20(DOI))
- Meijer, A., & Boon, W. (2024). Digital platforms for the co-creation of public value. In *Strategic Management of the Transition to Public Sector Co-Creation* (pp. 50-70). Policy Press. <https://doi.org/10.51952/9781447369042.ch003>
- Mutammimah, Pamungkas, S., & Mayangsari, S. (2025). Core Tax Administration System from the Perspective of the Theory of Planned Behavior. *Jurnal Ilmiah Akuntansi Kesatuan*, 13(6), 2039–2050. <https://doi.org/10.37641/jiakes.v13i6.4608>
- Muttwijaya, G. T. P., Padang, R. R., Yasa, I. N. P., & Adiputra, I. M. P. (2025). Digital transformation in tax administration: The role of Coretax, service quality, and morality in enhancing MSME compliance in Indonesia. *The Indonesian Journal of Accounting Research*, 28(2), 359–410. <https://doi.org/10.33312/ijar.947>
- Organisation for Economic Co-operation and Development. (2022). *Tax administration digital transformation initiatives*. OECD Publishing. <https://doi.org/10.1787/74d162b6-en>
- Prencipe, A. (2025). Accountability between compliance and legitimacy: Rethinking governance for corporate sustainability. *Sustainability*, 17(20), 9305.
- Purba, J., & Triwibowo, E. (2025). From transparency and governance to compliance: How tax digitalization shapes business sustainability. *Journal of Applied Accounting and Taxation*, 10(2), 206-218. <https://doi.org/10.30871/jaat.v10i2.11082>
- Puteri, A., Nordiansyah, M., Fatimah, & Norlena. (2024). Pengaruh pendapatan masyarakat, kualitas pelayanan, sanksi perpajakan, dan nilai jual objek pajak terhadap kepatuhan wajib pajak dalam membayar Pajak Bumi dan Bangunan Perdesaan dan Perkotaan (PBB-P2) di Kota Banjarmasin. *Jurnal Riset Akuntansi Politala*, 7(2), 378–389. <https://doi.org/10.34128/jra.v7i2.342>

- Rahmi, Notika & Arimbhi, Pebriana & Hidayat, Vigo. (2023). Analisis Manajemen Strategi Kebijakan Pembaharuan Core Tax Administration System (CTAS) dalam Upaya Penguatan Reformasi Administrasi Perpajakan di Indonesia. *Transparansi : Jurnal Ilmiah Ilmu Administrasi*. 6. 179-191. <https://doi.org/10.31334/transparansi.v6i2.3480>
- Rosyid, M. A., Pangesti, I., Hasanah, N., & Mastutik, S. (2024). The effect of digitalization on compliance and implementation of tax laws in Indonesia. *Mendapo: Journal of Administrative Law*, 5(3), 265–280. <https://doi.org/10.22437/mendapo.v5i3.32242>
- Scupola, A., & Mergel, I. (2022). Co-production in digital transformation of public administration and public value creation: The case of Denmark. *Government Information Quarterly*, 39(1), 101650.
- Siagian, P. (2025). The influence of tax reporting and the Core Tax System on taxpayer compliance (Study at the Primary Tax Service Office in DKI Jakarta). *Ilmu Ekonomi Manajemen dan Akuntansi*, 6(1), 221–232. <https://doi.org/10.37012/ileka.v6i1.2826>
- Sonnerfeldt, A. (2025). Navigating the Digital Frontier: The Implications of Tax Technology on Systems of Expertise and Legitimacy in Taxation. In *Taxation in the Digital Era: Economic, Legal, and Policy Challenges* (pp. 153-176). Cham: Springer Nature Switzerland. [https://doi.org/10.1007/978-3-031-93365-3\\_7](https://doi.org/10.1007/978-3-031-93365-3_7)
- Tomczyk, L., Mascia, M. L., Gierszewski, D., & Walker, C. (2023). Barriers to digital inclusion among older people: a intergenerational reflection on the need to develop digital competences for the group with the highest level of digital exclusion. *Innoeduca. International Journal of Technology and Educational Innovation*, 9(1), 5-26.
- Truong, B. T. T., Nguyen, P. V., Vrontis, D., & Ahmed, Z. U. (2024). Unleashing corporate potential: the interplay of intellectual capital, knowledge management, and environmental compliance in enhancing innovation and performance. *Journal of Knowledge Management*, 28(4), 1054-1073. <https://doi.org/10.1108/JKM-05-2023-0389>
- Wandaogo, A. A. (2022). Does digitalization improve government effectiveness? Evidence from developing and developed countries. *Applied Economics*, 54(33), 3840-3860. <https://doi.org/10.1080/00036846.2021.2016590>
- Wanka, A., Urbaniak, A., Oswald, F., & Kolland, F. (2023). Digital transformations in ageing societies: Challenges and opportunities for inclusive digitalization. *Zeitschrift für Gerontologie und Geriatrie*, 56(3), 177-180. <https://doi.org/10.1007/s00391-023-02186-z>
- Wulandari, H., & Raharjo, Y. (2026). Analisis efektivitas web pembaruan sistem inti administrasi perpajakan (PSIAP) sebagai solusi pembuatan faktur pajak keluaran di PT Petrokimia Gresik. *Jurnal Riset Akuntansi Politika*, 9(1), 149–161. <https://doi.org/10.34128/jra.v9i1.638>