

CORETAX DISRUPTION AND MSME TAX COMPLIANCE PSYCHOLOGY IN WEST NUSA TENGGARA

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Abstract

This study investigates the psychological determinants of tax compliance among individual Micro, Small, and Medium Enterprise (MSME) taxpayers in West Nusa Tenggara Province during the implementation of Indonesia's Coretax Administration System. Drawing on the Slippery Slope Framework, Theory of Planned Behavior, Technology Acceptance Model, and Nudge Theory, the study examines how digital literacy, algorithm trust, and nudge technology shape MSME tax compliance in a disrupted digital tax environment. A quantitative explanatory design was applied using 185 valid responses collected from MSME taxpayers who had experience with e-Filing or Coretax. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. The findings show that digital literacy has a positive and significant effect on tax compliance, while algorithm trust emerges as the strongest determinant of voluntary compliance. Nudge technology does not directly influence compliance, indicating that digital reminders and choice-architecture features require prior trust in the system to become behaviorally effective. The study contributes to digital tax compliance literature by emphasizing algorithm trust as a critical psychological mechanism in modern tax administration and offers practical implications for improving Coretax interface reliability, taxpayer digital literacy, and trust-based behavioral interventions.

Keywords: tax compliance; Coretax; digital literacy; algorithm trust; nudge technology

INTRODUCTION

Tax administration reform is a strategic agenda continuously pursued by the Directorate General of Taxes of the Republic of Indonesia to broaden the tax base and strengthen taxpayer compliance. The culmination of this reform agenda is the launch of the Coretax Administration System on 1 January 2025, an integrated tax information system designed to replace SIDJP and other legacy systems that had been used for more than two decades (Kementerian Keuangan Republik Indonesia, 2024). Coretax is intended to integrate core tax business processes, including taxpayer registration, return filing, payment, and audit administration, into a cloud-based digital platform supported by artificial intelligence and big data analytics.

Nevertheless, the implementation of Coretax has not been free from substantial disruption. During the first months of its adoption, reports from professional accounting associations, tax consultants, and business actors indicated frequent system interruptions, unintuitive interfaces, and limited user understanding of the new platform (Ikatan Konsultan Pajak

Indonesia, 2025). These conditions directly affect taxpayer perceptions and compliance behavior, especially among Micro, Small, and Medium Enterprises (MSMEs), whose internal information technology capabilities are often limited.

MSMEs occupy a strategic position in the Indonesian tax ecosystem. Data from the Ministry of Cooperatives and SMEs indicate that more than 65 million MSME units contribute approximately 61 percent of national gross domestic product and absorb around 97 percent of the national workforce (Kementerian Koperasi dan UKM, 2024). Despite this economic importance, the tax compliance rate of MSMEs has historically remained below its potential, with a substantial tax gap between expected and actual revenue (Darussalam et al., 2020). In West Nusa Tenggara (NTB), this challenge is amplified by uneven digital infrastructure and technology literacy gaps compared with the national average (Badan Pusat Statistik Provinsi NTB, 2024).

From the perspective of economic psychology, tax compliance is not merely a rational economic response determined by audit probability and sanctions, as suggested by Allingham and Sandmo (1972). Rather, it is shaped by complex psychological and social factors (Kirchler, 2007). Digitalized taxation introduces new dimensions into compliance behavior, including taxpayer digital literacy in accessing tax platforms, trust in algorithmic and automated systems that replace human-to-human interaction, and the effectiveness of nudge technology or choice architecture embedded in the tax system.

Algorithm trust is particularly relevant in the Coretax context because the system relies on automated processing to calculate tax liabilities, validate data, and generate compliance-related recommendations. Studies in organizational psychology and human-computer interaction show that trust in automated systems is a strong predictor of technology acceptance and reliance behavior (Lee & See, 2004; Logg et al., 2019). However, this construct remains underexplored in Indonesian tax compliance literature, particularly in relation to MSME taxpayers.

Furthermore, nudge technology, as developed by Thaler and Sunstein (2008), has been shown to improve compliance through behavioral interventions such as personalized reminders, default settings, simplified reporting choices, and social norm messages (Hallsworth et al., 2017; Antinyan & Asatryan, 2019). Coretax integrates similar features, yet their effectiveness among Indonesian MSME taxpayers, especially in regions with heterogeneous digital literacy, requires empirical examination.

Based on this research gap, this study investigates the influence of digital literacy, algorithm trust, and nudge technology on MSME individual taxpayer compliance in West Nusa Tenggara Province. The study integrates the Slippery Slope Framework, Theory of Planned Behavior, and Technology Acceptance Model as complementary theoretical lenses. Theoretically,

the research extends the psychology of tax compliance into a digital environment by positioning algorithm trust as a bridge between digital capability and voluntary compliance. Practically, it offers evidence-based recommendations for the Directorate General of Taxes and policymakers in designing trust-sensitive strategies for improving MSME compliance during Coretax implementation.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Slippery Slope Framework and the Psychology of Compliance

Kirchler, Hoelzl, and Wahl (2008) developed the Slippery Slope Framework (SSF) as a comprehensive framework explaining tax compliance as a function of two critical dimensions: the power of tax authorities and taxpayer trust in those authorities. Power tends to produce enforced compliance, whereas trust promotes voluntary compliance. Optimal compliance occurs when both dimensions are strong. In digital tax administration, however, authority is not only exercised through direct supervision but also through algorithmic systems capable of automatic detection and data reconciliation. Trust is therefore no longer directed solely at human tax officers; it also extends to the technological system itself. This conceptual shift underpins the construct of algorithm trust in this study. Gangl, Hofmann, and Kirchler (2015) confirm that trust is a psychological mechanism preceding voluntary compliance, and this mechanism must be reinterpreted within digital tax ecosystems.

Theory of Planned Behavior

The Theory of Planned Behavior developed by Ajzen (1991) explains that individual behavior is determined by intention, which is shaped by attitudes toward the behavior, subjective norms, and perceived behavioral control. In tax compliance, intention to comply is influenced by evaluations of paying taxes, social pressure from the surrounding environment, and beliefs about one's ability to fulfill tax obligations. Digital literacy improves perceived behavioral control because taxpayers who understand tax platforms feel more capable of completing their obligations independently. Algorithm trust contributes to positive attitudes toward digital tax systems, while nudge technology operates as an external mechanism that shapes norms and simplifies behavioral control.

Technology Acceptance Model

The Technology Acceptance Model (TAM) proposed by Davis (1989) states that technology acceptance is determined primarily by perceived usefulness and perceived ease of use. This model has been widely validated in information system, e-government, and digital taxation contexts

(Azmi & Kamarulzaman, 2010; Ling et al., 2016). In the context of Coretax, digital literacy shapes perceived ease of use because digitally literate taxpayers can navigate the system more effectively. Algorithm trust is closely associated with perceived usefulness because taxpayers are more likely to rely on a system that they perceive to process tax data accurately, fairly, and transparently.

Nudge Theory and Behavioral Tax Compliance

Thaler and Sunstein (2008) define a nudge as any aspect of choice architecture that predictably changes behavior without eliminating choices or significantly altering economic incentives. In taxation, nudges may take the form of reminders, default settings, simplification, social norm messages, and timely prompts. Hallsworth et al. (2017) demonstrated through a field experiment in the United Kingdom that tax reminder letters using social norm messages significantly increased payment compliance, while Antinyan and Asatryan (2019) confirmed the effectiveness of nudge interventions in tax compliance through a meta-analysis. Coretax incorporates digital nudges such as automatic deadline reminders, pre-populated data, visual compliance progress, and informative messages; however, their effect may depend on taxpayers' trust in the system.

Digital Literacy and Tax Compliance

Digital literacy refers to the ability to understand and use information presented through digital technologies (Gilster, 1997). Van Deursen and Van Dijk (2009) conceptualize digital literacy as a set of operational, formal, informational, and strategic skills. In digital taxation, these skills enable taxpayers to access e-Filing or Coretax, understand electronic tax forms, evaluate system-generated information, and strategically use platform features to fulfill obligations. Saad (2014) demonstrates that system complexity is a major barrier to compliance, and digital literacy functions as a buffer that reduces this negative effect. In Indonesia, Rahayu et al. (2022) similarly found a positive relationship between digital understanding and MSME taxpayer compliance.

H1: Digital literacy has a positive and significant effect on MSME tax compliance.

Algorithm Trust and Tax Compliance

Algorithm trust refers to an individual's belief that an automated computational system will perform accurately, transparently, fairly, and reliably in a specific task context (Lee & See, 2004). This construct differs from interpersonal or institutional trust because it focuses on the technological mechanism that replaces or complements human judgment. Logg, Minson, and Moore (2019) identify algorithm appreciation as the tendency to prefer algorithmic recommendations in certain domains, while Dietvorst, Sherlock, and Logg (2018) document algorithm aversion when users observe system failure. In Coretax, algorithm trust includes

confidence that the system calculates tax liabilities accurately, protects taxpayer data, applies rules fairly, and provides relevant recommendations. Taxpayers with higher algorithm trust are expected to use the system more consistently and report tax obligations more transparently.

H2: Algorithm trust has a positive and significant effect on MSME tax compliance.

Nudge Technology and Tax Compliance

Nudge technology embedded in Coretax is expected to encourage taxpayers to comply by reducing friction in reporting and payment decisions. Digital reminders, default pathways, and simplified choices can support taxpayers with limited administrative time. However, in a disrupted system, nudge effectiveness may be weakened if taxpayers doubt the credibility of the source or the reliability of the platform. Therefore, the direct effect of nudge technology on compliance requires empirical testing within the Coretax implementation context.

H3: Nudge technology has a positive and significant effect on MSME tax compliance.

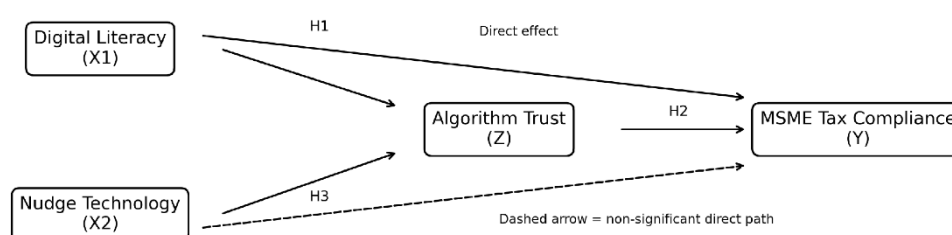


Figure 1. Research Framework

Source: Developed by the author (2026)

RESEARCH METHODS

Research Design

This study employs a quantitative approach with an explanatory research design to examine causal relationships among variables through hypothesis testing. This design is appropriate because the study aims to test the influence of digital literacy, algorithm trust, and nudge technology on MSME individual taxpayer compliance, including the behavioral mechanism surrounding digital tax adoption (Sekaran & Bougie, 2019). Primary data were collected through an online questionnaire distributed using Google Forms.

The population comprises individual taxpayers who own or manage MSMEs, possess active taxpayer identification numbers, and operate in West Nusa Tenggara Province. The MSME definition follows Law Number 20 of 2008, which classifies MSMEs as business entities with annual turnover below Rp50 billion. Based on available tax office data, more than 48,000 MSME individual taxpayers actively reported tax returns in 2024, making the population practically large and dynamic (Direktorat Jenderal Pajak NTB, 2024).

The sample size was determined by referring to the PLS-SEM rule of thumb, requiring at least ten times the maximum number of indicators in a construct (Hair et al., 2019). Because the largest construct contains five indicators, the minimum required sample was 50 respondents. To enhance statistical power and representativeness, 200 responses were initially targeted. After screening, 185 valid responses were retained for analysis.

Purposive sampling was used because the relevance of respondents' direct experience with digital tax systems is essential for valid perception-based measurement. The inclusion criteria were: (1) individual taxpayers with active tax identification numbers; (2) owners or managers of MSMEs with annual turnover below Rp50 billion; (3) taxpayers who had used e-Filing or attempted to access Coretax Administration System; and (4) respondents domiciled in or operating businesses within West Nusa Tenggara Province.

Operationalization of Variables

All constructs were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement instrument was adapted from validated scales in prior literature and contextualized to Coretax and Indonesian MSMEs. Adaptation involved translation, back-translation, and a pilot test with 30 respondents.

Table 1. Operationalization of Research Variables

Variable	Code	Indicators	Sources
Digital Literacy (X1)	LD1-L D5	Independent access to digital tax platforms; understanding digital tax information and guidelines; evaluating the accuracy of system-processed data; confidence in using tax applications without assistance; solving basic technical problems on digital platforms.	van Deursen & van Dijk (2009); Rahayu et al. (2022)
Algorithm Trust (Z)	KA1- KA5	Belief that Coretax calculates tax liabilities accurately; belief that personal and financial data are secure; perception that Coretax operates transparently and can be verified; belief that system recommendations are relevant and reliable; belief that Coretax treats MSMEs fairly without discrimination.	Lee & See (2004); Logg et al. (2019)

Variable	Code	Indicators	Sources
Nudge Technology (X2)	NT1-	Tax reminders encourage timely compliance; the intuitive Coretax interface facilitates filing; default settings guide users toward	Thaler & Sunstein (2008); Hallsworth et al. (2017)
	NT4	regulatory options; informative messages strengthen awareness of tax compliance.	
MSME Tax Compliance (Y)	KP1-K P4	Timely tax return submission; complete and truthful tax data reporting; willingness to pay liabilities without delay; openness in providing business financial information to the tax authority.	Kirchler (2007); Slemrod (2007); Darussalam et al. (2020)

Source: Developed from prior literature (2026)

Data Analysis Technique

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. PLS-SEM was selected for three reasons: the research orientation is predictive and exploratory in a relatively new theoretical setting; the method is flexible with respect to normality assumptions; and it enables simultaneous testing of structural relationships and complex models (Hair et al., 2019; Henseler et al., 2015). The analysis proceeded through three stages: evaluation of the measurement model, evaluation of the structural model, and hypothesis testing using bootstrapping with 5,000 subsamples at a 5 percent significance level.

RESULTS AND DISCUSSION

Respondent Characteristics

This study analyzed 185 valid responses from MSME individual taxpayers in West Nusa Tenggara Province.

Table 2. Demographic Profile of Respondents (n = 185)

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	78	42.2
	Female	107	57.8
Age	< 26 years	22	11.9
	26-35 years	78	42.2
	36-45 years	58	31.4
	> 45 years	27	14.6
Education	Senior high school/equivalent	45	24.3
	Diploma (D3)	38	20.5
	Bachelor (S1)	83	44.9
	Postgraduate (S2/S3)	19	10.3

Characteristic	Category	Frequency	Percentage (%)
Annual Turnover	< Rp300 million	72	38.9
	Rp300 million-Rp2.5 billion	85	45.9
	Rp2.5 billion-Rp50 billion	28	15.1
e-Filing Experience	< 2 years	41	22.2
	2-5 years	96	51.9
	> 5 years	48	25.9

Source: Primary data processed (2026)

The demographic profile shows that female taxpayers dominate the sample, representing 57.8 percent of respondents, while male taxpayers account for 42.2 percent. Most respondents are in productive age groups, particularly 26-35 years (42.2 percent) and 36-45 years (31.4 percent), indicating that most participants are economically active and capable of adapting to digital tax administration. In terms of education, the largest proportion holds a bachelor's degree (44.9 percent), suggesting adequate cognitive capacity to understand and evaluate the Coretax system. Most respondents have annual turnover between Rp300 million and Rp2.5 billion, while 51.9 percent have used e-Filing for two to five years. This profile indicates that the respondents are sufficiently familiar with digital tax reporting and relevant for evaluating Coretax implementation.

Descriptive Statistics

Table 3. Descriptive Statistics of Research Indicators

Indicator	Mean	Median	Std. Dev.	Min	Max	Category
LD1	3.91	4.00	0.724	1	5	High
LD2	3.78	4.00	0.761	1	5	High
LD3	3.64	4.00	0.812	1	5	High
LD4	3.52	4.00	0.843	1	5	Moderately High
LD5	3.48	4.00	0.871	1	5	Moderately High
KA1	3.42	3.00	0.891	1	5	Moderately High
KA2	3.31	3.00	0.934	1	5	Moderately High
KA3	3.17	3.00	0.912	1	5	Moderate
KA4	3.38	3.00	0.876	1	5	Moderately High
KA5	3.26	3.00	0.923	1	5	Moderately High
NT1	3.67	4.00	0.793	1	5	High
NT2	3.44	4.00	0.841	1	5	Moderately High
NT3	3.39	3.00	0.867	1	5	Moderately High
NT4	3.52	4.00	0.812	1	5	Moderately High
KP1	3.81	4.00	0.712	1	5	High

Indicator	Mean	Median	Std. Dev.	Min	Max	Category
KP2	3.74	4.00	0.741	1	5	High
KP3	3.62	4.00	0.798	1	5	High
KP4	3.49	4.00	0.831	1	5	Moderately High

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 3 shows that the mean values of all indicators range from 3.17 to 3.91, indicating generally positive perceptions across the constructs. Algorithm trust has the lowest average score among the variables, suggesting that MSME taxpayers in NTB still hold reservations about Coretax reliability, particularly during early implementation disruption. Standard deviations ranging from 0.712 to 0.934 indicate moderate response variability and reflect heterogeneous taxpayer experience with digital tax systems.

Measurement Model Evaluation

The measurement model was evaluated by examining convergent validity, reliability, and discriminant validity. Convergent validity was assessed using outer loading and Average Variance Extracted (AVE), while reliability was assessed using Composite Reliability and Cronbach's Alpha.

Table 4. Convergent Validity and Reliability Results

Variable	Indicator	Outer Loading	AVE	Composite Reliability	Cronbach's Alpha
Digital Literacy (X1)	LD1	0.812	0.612	0.883	0.841
	LD2	0.798			
	LD3	0.779			
	LD4	0.764			
	LD5	0.758			
Algorithm Trust (Z)	KA1	0.791	0.589	0.857	0.804
	KA2	0.781			
	KA3	0.744			
	KA4	0.769			
	KA5	0.751			
Nudge Technology (X2)	NT1	0.823	0.601	0.861	0.812
	NT2	0.782			
	NT3	0.763			
	NT4	0.769			
Tax Compliance (Y)	KP1	0.851	0.634	0.873	0.822
	KP2	0.821			
	KP3	0.779			
	KP4	0.762			

Source: Primary data processed with SmartPLS 4.0 (2026)

The results in Table 4 indicate that all indicators satisfy convergent validity, with outer loadings above 0.744 and AVE values between 0.589 and 0.634, exceeding the minimum threshold of 0.50. Construct reliability is also confirmed because Composite Reliability values range from 0.857 to 0.883 and Cronbach's Alpha values range from 0.804 to 0.841, all exceeding the minimum criterion of 0.70 (Hair et al., 2019). Thus, the measurement instruments are considered valid and reliable.

Table 5. Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)

Variable	LD (X1)	KA (Z)	NT (X2)	KP (Y)
Digital Literacy (X1)	-			
Algorithm Trust (Z)	0.612	-		
Nudge Technology (X2)	0.483	0.534	-	
Tax Compliance (Y)	0.531	0.718	0.421	-

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 5 shows that all HTMT values are below the critical threshold of 0.85, confirming adequate discriminant validity among constructs (Henseler et al., 2015). The highest HTMT value is observed between algorithm trust and tax compliance (0.718), which is theoretically reasonable given the strong conceptual relationship between trust in the system and voluntary compliance behavior.

Structural Model Evaluation

After the measurement model met validity and reliability criteria, the structural model was evaluated to assess predictive power and relationships among latent variables. The analysis included collinearity testing, coefficient of determination, effect size, predictive relevance, and bootstrapping-based hypothesis testing.

Table 6. Variance Inflation Factor (VIF) Results

Independent Variable	VIF toward Tax Compliance (Y)
Digital Literacy (X1)	1.345
Algorithm Trust (Z)	1.287
Nudge Technology (X2)	1.562

Source: Primary data processed with SmartPLS 4.0 (2026)

The VIF values in Table 6 are all below 5.00 and even below the conservative threshold of 3.00. This confirms that the model is free from serious multicollinearity, and the path coefficient estimates can be interpreted as stable and unbiased.

Table 7. Coefficient of Determination (R Square)

Endogenous Variable	R Square	R Square Adjusted	Category
MSME Tax Compliance (Y)	0.512	0.504	Strong

Source: Primary data processed with SmartPLS 4.0 (2026)

The R Square value for MSME tax compliance is 0.512, meaning that digital literacy, algorithm trust, and nudge technology jointly explain 51.2 percent of the variance in tax compliance behavior. The remaining 48.8 percent is explained by factors outside the model, such as tax morale, perceived tax rates, enforcement intensity, and macroeconomic conditions. The adjusted R Square value of 0.504 indicates stable explanatory power.

Table 8. Effect Size (f Square) toward Tax Compliance

Relationship	f Square	Effect Category
Digital Literacy (X1) -> Tax Compliance (Y)	0.154	Moderate effect
Algorithm Trust (Z) -> Tax Compliance (Y)	0.285	Moderate-to-large effect
Nudge Technology (X2) -> Tax Compliance (Y)	0.012	Negligible/small effect

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 8 indicates that algorithm trust has the strongest effect size (0.285), approaching the large effect category. This strengthens the argument that trust in the Coretax interface and automated calculations is the central psychological determinant of voluntary compliance in the digital tax era (Logg et al., 2019). Digital literacy shows a moderate effect, whereas nudge technology has only a negligible direct effect, suggesting that reminders and interface prompts are insufficient unless taxpayers first trust the system.

Table 9. Predictive Relevance (Q Square)

Endogenous Variable	SSO	SSE	Q Square (= 1 - SSE/SSO)	Prediction Category
MSME Tax Compliance (Y)	740.000	504.680	0.318	Strong

Source: Primary data processed with SmartPLS 4.0 (2026)

The Q Square value of 0.318 is greater than zero and exceeds the medium benchmark of 0.25. Therefore, the model has strong predictive relevance for MSME tax compliance. This result demonstrates that the psychological determinants proposed in this study accurately predict observed variations in compliance behavior within the Coretax ecosystem.

Hypothesis Testing

Table 10. Hypothesis Testing Results (Bootstrapping with 5,000 Subsamples)

Hypothesis	Path Coefficient (beta)	T-Statistic c	P-Value e	95% CI	Decision
H1: Digital Literacy (X1) -> Tax Compliance (Y)	0.312	3.847	0.000	[0.148; 0.476]	Accepted
H2: Algorithm Trust (Z) -> Tax Compliance (Y)	0.428	5.612	0.000	[0.278; 0.578]	Accepted
H3: Nudge Technology (X2) -> Tax Compliance (Y)	0.089	1.124	0.261	[-0.064; 0.241]	Rejected

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 10 shows that digital literacy has a positive and significant effect on MSME tax compliance, with a path coefficient of 0.312, T-statistic of 3.847, and P-value of 0.000. Therefore, H1 is accepted. Algorithm trust has the strongest positive and significant effect on tax compliance, with a path coefficient of 0.428, T-statistic of 5.612, and P-value of 0.000; thus, H2 is accepted. By contrast, nudge technology has a positive but insignificant direct effect on compliance, with a path coefficient of 0.089, T-statistic of 1.124, and P-value of 0.261. Accordingly, H3 is rejected.

Discussion

The Effect of Digital Literacy on MSME Tax Compliance

The results demonstrate that digital literacy functions as an essential enabler of tax compliance among MSME taxpayers in West Nusa Tenggara during the Coretax transition. Although most respondents belong to productive age groups and have adequate educational backgrounds, they still face a complex and unfamiliar digital interface. In this situation, digital literacy acts as a navigational instrument that facilitates administrative fulfillment, including e-Filing, data reconciliation, and timely reporting, without sacrificing the operational time of business owners.

This finding aligns with Ajzen's (1991) Theory of Planned Behavior, particularly perceived behavioral control. Digital literacy increases taxpayer self-efficacy because individuals with adequate technical capability feel more confident in completing obligations independently. This reduces unintentional non-compliance caused by operational barriers and enables taxpayers to move from administrative confusion toward disciplined voluntary reporting.

The finding also supports Rahayu et al. (2022), who argue that digital capability functions as a buffer against administrative system complexity. Saad (2014) similarly emphasizes that

technological understanding enables taxpayers to evaluate obligations accurately and reduces reliance on external consultants, thereby lowering compliance costs. In the NTB context, digital literacy becomes a form of cognitive capital that protects MSMEs from becoming non-compliant merely because they cannot adapt to e-government disruption.

The Effect of Algorithm Trust on MSME Tax Compliance

Algorithm trust emerges as the most dominant predictor of voluntary tax compliance in the Coretax ecosystem. Although the descriptive statistics show that algorithm trust has the lowest mean score due to early implementation problems, the structural model confirms that it is the strongest driver of compliance. When taxpayers believe that Coretax operates transparently, accurately, and fairly, suspicion toward automated calculations decreases, and taxpayers become more willing to disclose business turnover and financial information.

This result extends the Slippery Slope Framework into digital tax administration. Trust in tax authorities is no longer represented only by interpersonal interaction with tax officers; it is increasingly transferred to automated systems. If the system is perceived as invalid, opaque, or unstable, taxpayers may experience algorithm aversion, which can weaken voluntary compliance. Conversely, a reliable algorithmic system becomes a psychological anchor that strengthens taxpayer confidence and compliance intention.

The empirical result is consistent with Logg et al. (2019), who show that algorithm appreciation encourages individuals to follow system-based recommendations, and with Lee and See (2004), who demonstrate that trust in automation is essential for appropriate reliance. For MSME taxpayers, algorithm trust creates a digital psychological contract: taxpayers feel served by objective calculation rather than judged arbitrarily by authority. This trust can preserve revenue flows while strengthening institutional legitimacy without excessive reliance on coercive audits.

The Effect of Nudge Technology on MSME Tax Compliance

Nudge technology in Coretax does not exert a significant direct effect on MSME tax compliance. This result suggests that behavioral prompts such as in-app reminders, default options, and informative messages cannot operate effectively when system credibility is questioned. In practice, taxpayers may ignore automated messages or perceive them as routine notifications, especially when technical disruptions and interface errors reduce confidence in the system.

The insignificant direct effect provides an important boundary condition to Thaler and Sunstein's (2008) nudge concept. Digital reminders are designed to simplify decisions, but their persuasive effect depends on source credibility. If taxpayers doubt the reliability of Coretax, social

norm messages and reminders may lose their behavioral power and even contribute to notification fatigue. This finding adds nuance to Hallsworth et al. (2017) and Antinyan and Asatryan (2019), which documented nudge effectiveness in more mature administrative environments.

Therefore, in the NTB Coretax context, nudge technology should be understood as a secondary intervention rather than a standalone solution. Digital nudges become meaningful only when supported by individual digital capability and trust in the system. The implication is that the Directorate General of Taxes should not merely intensify reminders, but should first build interface legitimacy, system stability, and taxpayer confidence in algorithmic processes.

CONCLUSION

This study concludes that MSME tax compliance during Coretax implementation is shaped primarily by digital capability and psychological trust in automated systems. Digital literacy has a positive and significant influence on tax compliance, indicating that technical capability and self-efficacy enable taxpayers to navigate Coretax independently and reduce unintentional non-compliance caused by digital barriers.

Algorithm trust has the strongest positive and significant effect on MSME tax compliance. This confirms that taxpayer confidence in the accuracy, fairness, transparency, and reliability of automated tax processing is the most critical determinant of voluntary compliance in a digitalized tax administration environment. Trust in the algorithm reduces suspicion, strengthens full disclosure, and supports institutional legitimacy.

Nudge technology does not directly influence compliance, suggesting that digital reminders and choice-architecture features cannot stand alone when system reliability is still questioned. These interventions should be treated as tactical instruments that work effectively only after taxpayers perceive Coretax as credible and dependable.

For tax authorities, the immediate priority is to stabilize Coretax performance and improve the reliability of system outputs because each technical disruption can erode algorithm trust. In the medium term, the Directorate General of Taxes should implement integrated digital tax literacy programs for MSMEs in regions with limited infrastructure such as NTB. The design of nudges in Coretax should also shift from simple reminders toward trust-building messages, transparent explanations, and personalized support. Future research should adopt longitudinal designs to observe how algorithm trust evolves as Coretax matures, expand the sample to other provinces, and include moderating variables such as formal education, internet access, and prior negative experiences with digital tax systems.

BIBLIOGRAPHY

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Alm, J. (2019). What motivates tax compliance? *Journal of Economic Surveys*, 33(2), 353-388. <https://doi.org/10.1111/joes.12272>
- Alm, J., Cherry, T., Jones, M., & McKee, M. (2010). Taxpayer information assistance services and tax compliance behavior. *Journal of Economic Psychology*, 31(4), 577-586. <https://doi.org/10.1016/j.joep.2010.03.018>
- Antinyan, A., & Asatryan, Z. (2019). Nudging for tax compliance: A meta-analysis (ZEW Discussion Paper No. 19-055). ZEW - Leibniz Centre for European Economic Research. <https://doi.org/10.2139/ssrn.3477540>
- Azmi, A. A. C., & Kamarulzaman, Y. (2010). Adoption of tax e-filing: A conceptual paper. *African Journal of Business Management*, 4(5), 599-603.
- Badan Pusat Statistik Provinsi NTB. (2024). Statistik infrastruktur teknologi informasi Nusa Tenggara Barat 2024. BPS NTB.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bobek, D. D., & Hatfield, R. C. (2003). An investigation of the theory of planned behavior and the role of moral obligation in tax compliance. *Behavioral Research in Accounting*, 15(1), 13-38. <https://doi.org/10.2308/bria.2003.15.1.13>
- Cialdini, R. B. (2009). *Influence: Science and practice* (5th ed.). Pearson Education.
- Darussalam, Hutagaol, D., & Septriadi, D. (2020). *Konsep dan aplikasi perpajakan Indonesia* (Edisi Revisi). DDTC.
- 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>
- Dietvorst, B. J., Sherlock, J. M., & Logg, J. M. (2018). Algorithm aversion and appreciation. In M. Bauer & J. Schwarze (Eds.), *The psychology of numbers: Advances and future directions* (pp. 1-30). Springer.
- Direktorat Jenderal Pajak. (2024). *Panduan pengguna Coretax Administration System*. Kementerian Keuangan Republik Indonesia.

- Direktorat Jenderal Pajak NTB. (2024). Laporan kepatuhan wajib pajak UMKM Provinsi Nusa Tenggara Barat tahun 2024. KPP Pratama NTB.
- Feld, L. P., & Frey, B. S. (2007). Tax compliance as the result of a psychological tax contract: The role of incentives and responsive regulation. *Law & Policy*, 29(1), 102-120. <https://doi.org/10.1111/j.1467-9930.2007.00248.x>
- Gangl, K., Hofmann, E., & Kirchler, E. (2015). Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust. *New Ideas in Psychology*, 37, 13-23. <https://doi.org/10.1016/j.newideapsych.2014.12.001>
- Gilster, P. (1997). *Digital literacy*. Wiley.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hallsworth, M., List, J. A., Metcalfe, R. D., & Vlaev, I. (2017). The behaviorist as tax collector: Using natural field experiments to enhance tax compliance. *Journal of Public Economics*, 148, 14-31. <https://doi.org/10.1016/j.jpubeco.2017.02.003>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Ikatan Konsultan Pajak Indonesia (IKPI). (2025). Laporan evaluasi implementasi Coretax Administration System triwulan I 2025. IKPI.
- Kementerian Keuangan Republik Indonesia. (2024). Reformasi perpajakan: Coretax Administration System sebagai tulang punggung modernisasi DJP. Kementerian Keuangan.
- Kementerian Koperasi dan UKM. (2024). Data UMKM Indonesia 2023-2024. Kementerian Koperasi dan UKM.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511628238>
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The slippery slope framework. *Journal of Economic Psychology*, 29(2), 210-225. <https://doi.org/10.1016/j.joep.2007.05.004>
- Lee, J. D., & See, K. A. (2004). Trust in automation: Designing for appropriate reliance. *Human Factors*, 46(1), 50-80. https://doi.org/10.1518/hfes.46.1.50_30392
- Ling, L. M., Nawawi, A., & Ahmad, N. (2016). Tax e-filing adoption in Malaysia: An empirical study. *International Journal of Tax Research*, 14(2), 427-443.

- Logg, J. M., Minson, J. A., & Moore, D. A. (2019). Algorithm appreciation: People prefer algorithmic to human judgment. *Organizational Behavior and Human Decision Processes*, 151, 90-103. <https://doi.org/10.1016/j.obhdp.2018.12.005>
- Mustikasari, E. (2007). Kajian empiris tentang kepatuhan wajib pajak badan di perusahaan industri pengolahan di Surabaya. *Simposium Nasional Akuntansi X*, 1-41.
- Nurfauzi, R., & Mahardika, A. S. (2020). Pengaruh literasi digital terhadap kepatuhan wajib pajak UMKM di era digitalisasi perpajakan. *Jurnal Akuntansi dan Keuangan Indonesia*, 17(2), 145-162. <https://doi.org/10.21002/jaki.2020.09>
- OECD. (2021). *Tax administration 3.0: The digital transformation of tax administration*. OECD Publishing. <https://doi.org/10.1787/6750d5d6-en>
- OECD. (2022). *Digital transformation and tax compliance: Evidence from SMEs (OECD Taxation Working Papers No. 58)*. OECD Publishing. <https://doi.org/10.1787/12345678>
- Prasetyo, B., & Muflikhah, L. (2019). Faktor-faktor yang mempengaruhi kepatuhan wajib pajak UMKM. *Jurnal Akuntansi Multiparadigma*, 10(1), 119-132. <https://doi.org/10.18202/jamal.2019.04.10008>
- Rahayu, N., Susilowati, D., & Wijaya, S. (2022). Literasi digital, persepsi kemudahan, dan kepatuhan pajak wajib pajak orang pribadi UMKM. *Jurnal Riset Akuntansi dan Keuangan*, 10(3), 451-468. <https://doi.org/10.17509/jrak.v10i3.48123>
- Republik Indonesia. (2008). Undang-Undang Nomor 20 Tahun 2008 tentang Usaha Mikro, Kecil, dan Menengah. Lembaran Negara RI Tahun 2008 Nomor 93.
- Saad, N. (2014). Tax knowledge, tax complexity and tax compliance: Taxpayers' view. *Procedia - Social and Behavioral Sciences*, 109, 1069-1075. <https://doi.org/10.1016/j.sbspro.2013.12.590>
- Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- Slemrod, J. (2007). Cheating ourselves: The economics of tax evasion. *Journal of Economic Perspectives*, 21(1), 25-48. <https://doi.org/10.1257/jep.21.1.25>
- Sunstein, C. R. (2014). Nudging: A very short guide. *Journal of Consumer Policy*, 37(4), 583-588. <https://doi.org/10.1007/s10603-014-9273-1>
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
- van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2009). Using the Internet: Skill related problems in users' online behavior. *Interacting with Computers*, 21(5-6), 393-402. <https://doi.org/10.1016/j.intcom.2009.06.005>

- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Widodo, W., Djefris, D., & Wardhani, E. A. (2010). *Moralitas, budaya, dan kepatuhan pajak*. Alfabeta.
- Wulandari, T. A., & Nugroho, A. D. (2023). Pengaruh penggunaan e-Filing terhadap kepatuhan wajib pajak UMKM dengan kepercayaan sebagai variabel mediasi. *Jurnal Akuntansi dan Pajak*, 23(2), 512-528. <https://doi.org/10.29040/jap.v23i2.7214>
- Yusof, N. A. M., & Lai, M. L. (2014). An exploratory study on tax knowledge and tax complexity and their relationship with tax compliance. *Asian Social Science*, 10(10), 28-37. <https://doi.org/10.5539/ass.v10n10p28>