Proceeding of International Bussiness and Economic Conference (IBEC) Vol. 5 No. 1, pp. 805-818, November, 2026
http://conference.eka-prasetya.ac.id/index.php/ibec

Tax Sanctions, Digital Tax Socialization, and Coretax Awareness in Relation to Tax Compliance among Culinary MSMEs in Medan Timur District

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ABSTRACT

This study examines the relationships of tax sanctions, digital tax socialization, and Coretax awareness with self-reported tax compliance among culinary MSMEs in Medan Timur District. A cross-sectional quantitative survey was conducted, with 181 complete response records from a population of 332 business units. The manuscript reports simple random sampling. Questionnaire data were analyzed using partial least squares structural equation modeling (PLS-SEM) in SmartPLS 3. Tax sanctions ($\beta = 0.284$, $p = 0.005$), digital tax socialization ($\beta = 0.265$, $p = 0.025$), and Coretax awareness ($\beta = 0.292$, $p = 0.009$) were positively associated with self-reported tax compliance. The model explained 52.8% of the variance in compliance scores ($R^2 = 0.528$; adjusted $R^2 = 0.520$); 47.2% remained unexplained by the model. All three effect sizes were small ($f^2 = 0.092$, 0.055, and 0.093, respectively). These findings identify associations that may inform taxpayer education and assistance. The cross-sectional, questionnaire-based design does not establish causality, and the mechanisms underlying the associations were not separately tested.

Keywords: Tax Compliance, MSMEs, Tax Sanctions, Digital Tax Socialization, Coretax Awareness

INTRODUCTION

Taxation is one of the sources of state revenue and plays an important role in supporting national development. Through tax revenue, the government can finance various public needs, such as infrastructure development, the provision of educational services, improvements in healthcare quality, and various social welfare programs. In Indonesia, the tax system adopts a self-assessment system that entrusts taxpayers with the responsibility to independently calculate, pay, and report their tax obligations. Therefore, the level of taxpayer compliance is one of the key factors determining the effectiveness of tax revenue collection and the sustainability of national development (Amalia, 2025). Although taxation plays a highly important role in supporting national development, efforts to optimize tax revenue continue to face various challenges, particularly those related to the level of taxpayer compliance in fulfilling their tax obligations.

Tax compliance concerns the fulfillment of applicable registration, calculation, payment, and reporting obligations. Questionnaire-based assessments provide information about respondents' accounts of these obligations but do not independently establish compliance with tax records. In this study, compliance is therefore interpreted as self-

reported tax compliance. The local context is examined through the survey rather than inferred from national news.

National tax-revenue reports do not by themselves demonstrate non-compliance among culinary MSMEs in Medan Timur District. No documented local preliminary-survey results or comparable local tax records are presented here. Accordingly, this study examines whether the selected questionnaire-based predictors are associated with reported compliance in this district, without assuming that local business growth or a decline in compliance has been established.

Tax sanctions provide a conceptual basis for examining how respondents' perceptions of penalties relate to compliance. Caroline et al. (2023) discuss a positive sanctions–compliance relationship in a literature-based article, rather than supplying a directly comparable local survey estimate. The present survey measures respondents' questionnaire responses concerning sanctions; it does not measure administrative enforcement records or actual penalties imposed on each business.

Tax socialization concerns the provision of information and guidance on tax obligations and procedures. Hidayat et al. (2025) examine general tax socialization and distinguish direct relationships with compliance from relationships involving awareness. In the present article, the term digital tax socialization refers conceptually to tax education delivered through digital channels or addressing digital tax services. These dimensions must be distinguished when interpreting the administered questionnaire; general socialization activities alone do not establish that either digital dimension was measured.

Coretax awareness is conceptually distinct from general taxpayer awareness, tax literacy, and actual use of a tax system. Here it concerns awareness of the existence, functions, and role of Coretax in tax administration. The study examines its association with reported compliance without claiming that local MSMEs' lack of Coretax understanding or their actual system use was established by national news or by studies of general awareness.

Earlier research examines related constructs in different settings. Laksono & Rizal (2022) report significant relationships of general tax socialization and tax sanctions with compliance among individual taxpayers at KPP Pratama Metro. Hidayat et al. (2025), using a model involving taxpayer awareness at KPP Pratama Jember, report a significant direct socialization relationship but a non-significant direct sanctions relationship. Differences in settings, respondents, and model specifications mean that these results are not identical tests of digital socialization or Coretax awareness among culinary MSMEs.

This study contributes evidence from culinary MSMEs in Medan Timur District by examining tax sanctions, digital tax socialization, and Coretax awareness together in relation to self-reported tax compliance. The contribution is contextual and construct-specific; it does not depend on a claim that this topic has never been studied. The Theory of Planned Behavior (TPB) is used as an interpretive framework, while the empirical model contains three direct predictor–compliance relationships and does not test the complete TPB model.

LITERATURE REVIEW

Grand Theory

The Theory of Planned Behavior explains behavioral intention through attitude, subjective norm, and perceived behavioral control, with intention and perceived control informing behavior (Ajzen, 1991). It provides a lens for interpreting how sanctions, tax education, and system awareness may relate to compliance. Perceived sanctions may

be relevant to evaluations of non-compliance consequences; tax education may inform perceptions of expectations and the ability to meet obligations; awareness of Coretax may inform evaluations of digital tax administration. These are possible conceptual connections rather than equivalences between the selected constructs and TPB components. Attitude, subjective norm, perceived behavioral control, and intention were not measured as separate constructs, and no intention or mediation pathway was tested.

Tax Sanctions

Tax sanctions concern penalties for tax violations. In this questionnaire-based study, the sanctions construct is interpreted as respondents' reported perceptions concerning sanctions, not actual penalties or objectively measured enforcement. (Caroline et al., 2023; Octafiani et al., 2023; Ningsih et al., 2024; Halim, 2022; Herliani et al., 2022; Hapsari, 2023) provide a literature-based discussion of sanctions and compliance. The manuscript describes indicator themes concerning prevention of violations, perceived firmness, administrative and criminal sanctions, and conformity with regulations. However, the exact wording and source mapping of SP1–SP8 are needed to determine whether these items primarily capture knowledge, perceived severity, or perceived enforcement (Wahyuni et al., 2024).

Tax Socialization

Tax socialization is an educational process that communicates tax obligations, regulations, and procedures to taxpayers. Related studies examine general socialization in taxpayer and MSME settings (Hidayat et al., 2025; Pitaloka et al., 2023; Pristina et al., 2024; Waang, 2023). Digital delivery of education and education about digital services are distinct dimensions. The reported themes include learning about taxation, contact with tax professionals, community events, and choice of activities; these themes may also occur offline. The eight items SOP1–SOP8 therefore require verification against the administered questionnaire before the scope of the digital label can be established. The item content and collected responses have not been altered (Silalahi & Herawati, 2024).

Coretax Awareness

Coretax awareness concerns respondents' awareness of the existence, functions, and administrative role of the Coretax system. It is conceptually different from willingness to comply, general tax knowledge, and actual system use (Arslan et al., 2025; Herianti & Marundha, 2024; Priyatna & Dharma, 2023; Komala & Elen, 2021; Maulina et al., 2025). The manuscript reports six indicators, KC1–KC6, but their wording is not provided. Consequently, the distinction from compliance and digital socialization cannot be evaluated from item codes and loadings alone. No claim is made that a cited education or literacy study supplied these exact six items (Marcellina et al., 2026).

Tax Compliance

Self-reported tax compliance refers to questionnaire responses concerning the fulfillment of applicable tax obligations (Wahyuni et al., 2022; Herliani et al., 2022; Utami et al., 2024; Hikmah & Ratnawati, 2024). The manuscript describes registration, calculation and payment of liabilities, settlement of arrears, and filing of returns as indicator themes, and reports eight indicators, KP1–KP8. Responses were not accompanied by payment or filing records in the supplied material. The assessed tax types, reference period, response labels, and treatment of non-applicable obligations, particularly arrears for businesses without arrears, require verification against the questionnaire and field records. Item-source attribution cannot be confirmed from the reported codes alone (Gultom et al., 2022).

Relationships Between Variables

Tax sanctions may be positively associated with compliance when respondents perceive

non-compliance as carrying consequences. This is a proposed explanation, not a mechanism independently measured in the present model. The analysis concerns sanctions as captured by the questionnaire. The first hypothesis is formulated as follows:

H1: Tax sanctions are positively associated with self-reported tax compliance among culinary MSMEs in Medan Timur District.

Tax education may assist taxpayers in understanding obligations and available procedures. Laksono & Rizal (2022) examine general socialization among individual taxpayers, while Sukesi & Yunaidah (2020) study socialization, services, satisfaction, and compliance in a motor-vehicle-tax setting. These studies provide related background rather than evidence that the same digital construct was measured. Subject to the content of the administered items, the second hypothesis is formulated as follows:

H2: Digital tax socialization is positively associated with self-reported tax compliance among culinary MSMEs in Medan Timur District.

Awareness of the Coretax system may be associated with reported compliance, potentially because awareness helps respondents evaluate digital tax administration. Awareness does not establish actual system use or readiness, and these possible explanations were not modeled as separate mechanisms. The third hypothesis is formulated as follows:

H3: Coretax awareness is positively associated with self-reported tax compliance among culinary MSMEs in Medan Timur District.

Accordingly, the conceptual framework used in this study is presented in the following figure:

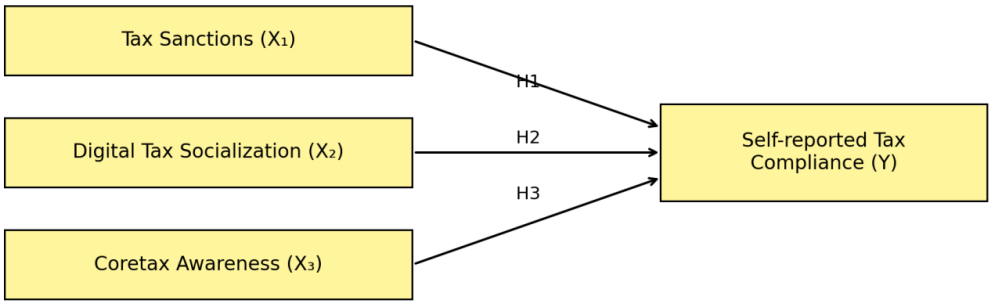


Figure 1. Conceptual Framework of the Three Direct Associations

RESEARCH METHOD

This study employed a cross-sectional quantitative survey with an associative design to examine relationships between three questionnaire-based predictors and self-reported tax compliance among culinary MSMEs in Medan Timur District. The design permits estimation of associations but does not establish temporal ordering or causal effects.

The study population consisted of 332 culinary MSME business units in Medan Timur District. The sample size was determined using the Slovin formula: $n = N / (1 + Ne^2) = 332 / [1 + 332(0.05)^2] = 332 / 1.83 = 181.42$, which was rounded up to 181 respondents, where N represents the population size and e represents the margin of error (5%). The population list was obtained from the Medan City Office of Cooperatives and MSMEs in 2026. Questionnaires were distributed in September 2026, with 193 businesses contacted and 181 responses returned. All 181 responses were included in the analysis after data screening. Simple random sampling was used to select culinary MSME

business units from the population, giving each business an equal chance of selection. The Slovin formula was used for sample-size planning rather than statistical power analysis.

Primary data were collected using a structured questionnaire comprising 30 items measuring four variables: tax sanctions (SP1–SP8), digital tax socialization (SOP1–SOP8), Coretax awareness (KC1–KC6), and self-reported tax compliance (KP1–KP8). The questionnaire items and their corresponding indicators are presented in Appendix 1. Each item was measured using a five-point response scale, with numerical scores ranging from 1 to 5. The final dataset comprised 181 complete responses, with no exact duplicate response records. The data were analyzed using the corresponding measurement indicators for each construct. Although the questionnaire items are provided in Appendix 1, the available information does not establish whether any items were reverse-coded or identify the specific tax period to which respondents' answers referred. In addition, the available methodological information does not establish whether a pilot test was conducted. These limitations should be considered when interpreting the measurement validity and the extent to which the findings specifically reflect digital tax socialization and tax compliance under the Coretax system.

The exported model specifies reflective indicators for all four constructs. Measurement assessment used outer loadings (≥ 0.70), AVE (≥ 0.50), HTMT (< 0.90), Cronbach's alpha, and composite reliability (≥ 0.70). All 30 response columns appear in the exported measurement model, so no omission of a supplied response column is evident. These statistical criteria do not establish content validity or justify reflective specification by themselves. That justification still requires the administered item wording; a change to formative measurement would require re-estimation.

The original exports identify SmartPLS 3 (Ringle et al., 2015), rather than SmartPLS 4; the precise build is not recorded. The PLS algorithm used path weighting, standardized data (mean 0, variance 1), initial weights of 1.0, a maximum of 300 iterations, and a stop criterion recorded as 7. No missing-data treatment was applied, consistent with the complete response matrix. Structural assessment included inner VIF, R^2, f^2, and SRMR. Basic bootstrapping used 500 resamples, a two-tailed test, $\alpha = 0.05$, and the bias-corrected and accelerated (BCa) interval method recorded in the settings. Both 2.5% and 97.5% endpoints from the bias-corrected output are reported. Blindfolding used an omission distance of 7 to assess Stone–Geisser's Q^2. This sample-reuse measure does not establish out-of-sample predictive performance (SmartPLS, n.d.).

RESULTS

Respondent Information

The verified analysis dataset contains 181 complete response records. Descriptive scores were calculated as the unweighted arithmetic mean of the supplied numeric item responses within each construct, without additional reverse coding; they are distinct from the standardized latent-variable scores used in PLS-SEM. Tax sanctions had M = 2.631, SD = 0.937, and an observed range of 1.250–4.750; digital tax socialization had M = 2.602, SD = 0.945, range 1.250–4.750; Coretax awareness had M = 2.751, SD = 1.102, range 1.167–5.000; and self-reported tax compliance had M = 2.690, SD = 1.016, range 1.250–4.875. SD values use the sample denominator (n − 1). Because response labels and item polarity were not supplied, these means are not classified as low or high awareness or compliance. Demographic information and actual Coretax-use experience were not included in the response file.

Outer Model

Convergent Validity Test

Convergent validity is used to measure the extent to which indicators designed to measure the same construct produce aligned and consistent measurement results. A high level of convergent validity indicates that the indicators adequately represent the latent construct being measured. In this study, convergent validity testing using SmartPLS 3 was conducted by evaluating the outer loading values and construct validity.



Source: Prepared by the Authors, SmartPLS 3 Output (2026)

Figure 2. Reported Outer Model

The reported outer loadings exceed 0.70. The 30 displayed indicators comprise eight sanctions items, eight socialization items, six Coretax-awareness items, and eight compliance items. Their item codes and loadings are shown in Table 1.

Table 1.
Outer Loading Test

	Self-reported Tax Compliance	Coretax Awareness	Tax Sanctions	Digital Tax Socialization
KC1		0,846		
KC2		0,829		
KC3		0,846		
KC4		0,856		
KC5		0,829		
KC6		0,833		
KP1	0,786			
KP2	0,786			
KP3	0,819			
KP4	0,826			
KP5	0,769			
KP6	0,767			
KP7	0,764			
KP8	0,829			
SOP1				0,865
SOP2				0,837
SOP3				0,802
SOP4				0,837
SOP5				0,749

	Self-reported Tax Compliance	Coretax Awareness	Tax Sanctions	Digital Tax Socialization
SOP6				0,822
SOP7				0,734
SOP8				0,736
SP1			0,763	
SP2			0,745	
SP3			0,728	
SP4			0,770	
SP5			0,740	
SP6			0,745	
SP7			0,741	
SP8			0,718	

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

Outer loadings range from 0.718 to 0.865 and satisfy the stated criterion for the exported measurement model. All 30 columns in the supplied response dataset are represented in the model. This establishes consistency between the supplied data columns and retained indicator codes, but not whether other questions were administered or whether the items adequately measure the digital and Coretax concepts.

Table 2.
Construct Validity Test

	Average Variance Extracted (AVE)
Self-reported Tax Compliance	0,630
Coretax Awareness	0,706
Tax Sanctions	0,553
Digital Tax Socialization	0,639

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

The AVE values range from 0.553 to 0.706, exceeding the minimum threshold of 0.50. These results indicate that each construct is able to explain more than 50% of the variance in its indicators. Therefore, all constructs have met the requirements for convergent validity.

Discriminant Validity Test
The data were analyzed using SmartPLS 3, and discriminant validity testing forms part of the outer model evaluation. This test includes the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio test.

Table 3.
Fornell Larcker and Heterotrait-Monotrait Ratio of Correlations (HTMT)

	Fornell Larcker			
	Self-reported Tax Compliance	Coretax Awareness	Tax Sanctions	Digital Tax Socialization
Self-reported Tax Compliance	0,794			
Coretax Awareness	0,619	0,840		
Tax Sanctions	0,609	0,503	0,744	
Digital Tax Socialization	0,660	0,697	0,677	0,799

	Heterotrait-Monotrait Ratio of Correlations (HTMT)
Self-reported Tax Compliance	

Coretax Awareness	0,674		
Tax Sanctions	0,669	0,562	
Digital Tax Socialization	0,717	0,763	0,753

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

The Fornell-Larcker criterion is satisfied because the square root of the AVE for each construct is greater than its correlations with the other constructs. In addition, all HTMT values range from 0.562 to 0.763 and are below the threshold of 0.90. Therefore, all four constructs demonstrate adequate discriminant validity.

Table 4.
Construct Reliability Test

	Cronbach's Alpha	rho_A	Composite Reliability
Self-reported Tax Compliance	0,916	0,916	0,932
Coretax Awareness	0,917	0,917	0,935
Tax Sanctions	0,885	0,887	0,908
Digital Tax Socialization	0,919	0,922	0,934

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

The Cronbach's Alpha values range from 0.885 to 0.919, while the Composite Reliability values range from 0.908 to 0.935. All of these values exceed the recommended threshold of 0.70. Therefore, all four constructs demonstrate adequate internal consistency reliability.

Table 5.
Variance Inflation Factor

	Outer VIF
KC1	2,512
KC2	2,265
KC3	2,614
KC4	2,674
KC5	2,247
KC6	2,355
KP1	2,256
KP2	2,186
KP3	2,750
KP4	2,873
KP5	2,191
KP6	2,000
KP7	2,162
KP8	2,497
SOP1	3,013
SOP2	2,685
SOP3	2,285
SOP4	2,625
SOP5	1,871
SOP6	2,378
SOP7	1,808
SOP8	1,824
SP1	1,972
SP2	1,901
SP3	1,715
SP4	2,097
SP5	1,853

Outer VIF	
SP6	2,081
SP7	2,151
SP8	2,010

Inner VIF	
	Self-reported Tax Compliance
Self-reported Tax Compliance	
Coretax Awareness	1,950
Tax Sanctions	1,851
Digital Tax Socialization	2,686

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

Outer VIF values are below 5.00, indicating no critical indicator-level collinearity under the stated cutoff. Separately, the inner VIF values for predictors of self-reported tax compliance are 1.851 for tax sanctions, 2.686 for digital tax socialization, and 1.950 for Coretax awareness. All are below 5.00, indicating no critical structural collinearity under this criterion.

Inner Model

R-Square

R^2 summarizes the proportion of variance in the measured dependent-construct scores explained by the specified predictors in the analyzed sample. It is not the proportion of compliant businesses and does not by itself demonstrate prediction on new data.

Table 6.
R-Square

	R Square	R Square Adjusted
Self-reported Tax Compliance	0,528	0,520

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

The R^2 value is 0.528 and adjusted R^2 is 0.520. The three predictors explain 52.8% of the variance in self-reported tax-compliance scores, while 47.2% of the variance remains unexplained by the model. The analysis does not assign that unexplained variance to specific causes.

Hypothesis Testing

Hypothesis testing is a statistical method used to examine assumptions or statements formulated in a study. This test is conducted by analyzing the data obtained as a basis for determining whether the research hypotheses are supported or not supported.

Table 7.
Hypothesis Test

Structural Path	β	STDEV	t	p	**95% BCa CI**	Conclusion
Tax Sanctions → Self-reported Tax Compliance	0.284	0.100	2.838	0.005	[0.115, 0.511]	H1 Supported
Digital Tax Socialization → Self-reported Tax Compliance	0.265	0.118	2.249	0.025	[0.028, 0.495]	H2 Supported
Coretax Awareness → Self-reported Tax Compliance	0.292	0.111	2.627	0.009	[0.069, 0.492]	H3 Supported

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

In the original hypothesis order, tax sanctions are positively associated with self-reported compliance (H_1: β = 0.284, t = 2.838, p = 0.005, 95% BCa CI [0.115, 0.511]); digital tax

socialization is positively associated with compliance (H_2: β = 0.265, t = 2.249, p = 0.025, 95% BCa CI [0.028, 0.495]); and Coretax awareness is positively associated with compliance (H_3: β = 0.292, t = 2.627, p = 0.009, 95% BCa CI [0.069, 0.492]). All three intervals exclude zero and all p values are below 0.05. The estimates support the three statistical hypotheses under the exported model. The intervals are based on 500 bootstrap resamples; greater resampling precision would require a new bootstrap run.

Table 8.
Effect Size f²

	Self-reported Tax Compliance
Self-reported Tax Compliance	
Coretax Awareness	0,093
Tax Sanctions	0,092
Digital Tax Socialization	0,055

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

Coretax Awareness has an f² value of 0.093, Tax Sanctions have an f² value of 0.092, and Digital Tax Socialization has an f² value of 0.055. All three values fall within the small effect size category. Although Coretax Awareness has the numerically largest effect size, its difference from Tax Sanctions is only 0.001. Therefore, Coretax Awareness cannot be considered to have a substantially more dominant effect than Tax Sanctions.

Blindfolding Predictive Relevance
Stone–Geisser's Q² was obtained from the construct cross-validated redundancy section of the original SmartPLS 3 blindfolding export. The omission distance was 7. This procedure reuses the estimation sample and assesses predictive relevance for the endogenous construct; it is distinct from Q²predict and does not test prediction on new observations (SmartPLS, n.d.).

Table 9.
Blindfolding Cross-Validated Redundancy

	SSO	SSE	Q² (=1-SSE/SSO)
Self-reported Tax Compliance	1448,000	975,146	0,327
Coretax Awareness	1086,000	1086,000	
Tax Sanctions	1448,000	1448,000	
Digital Tax Socialization	1448,000	1448,000	

Source: Authors' SmartPLS 3 blindfolding export; omission distance = 7.

For self-reported tax compliance, SSO = 1448.000 and SSE = 975.146. Thus, Q² = 1 − SSE/SSO = 0.326557, rounded to 0.327. The positive Q² indicates predictive relevance under the blindfolding procedure. The blank Q² entries for the exogenous constructs are not interpreted as zero predictive relevance. No PLSpredict errors or benchmark comparisons are available, so out-of-sample predictive performance is not established.

Standardized Root Mean Square Residual (SRMR)
The Standardized Root Mean Square Residual (SRMR) is one of the indicators used to evaluate model fit in Partial Least Squares Structural Equation Modeling (PLS-SEM). The SRMR value represents the difference between the observed correlations and the correlations estimated by the model. A lower SRMR value indicates better model fit. An SRMR value of ≤ 0.08 generally indicates good model fit, while values ranging from 0.08

to 0.10 may still be considered acceptable. Therefore, an SRMR value approaching 0 indicates that the model increasingly fits the empirical data.

Table 10.
Standardized Root Mean Square Residual (SRMR)

	Saturated Model	Estimated Model
SRMR	0,058	0,058

Source: Prepared by the Authors, SmartPLS 3 Output (2026)

The SRMR values for both the saturated and estimated models are 0.058, which is below the recommended threshold of 0.08. Therefore, the model meets the established SRMR criterion. This result should be interpreted together with the evaluation of the measurement model and structural model rather than being used as the sole basis for assessing the overall quality of the model.

DISCUSSION

Tax sanctions are positively associated with self-reported tax compliance (H_1: β = 0.284, t = 2.838, p = 0.005), with a small effect size (f^2 = 0.092). A possible explanation is that perceived consequences of non-compliance are relevant to respondents' evaluations of their obligations. This explanation was not tested as a mediator or independent mechanism. Caroline et al. (2023) discuss sanctions and compliance in a literature-based article, whereas Hidayat et al. (2025) report a non-significant direct sanctions relationship in a different model and setting. Thus, related evidence should be compared with attention to design and construct differences rather than treated as identical confirmation. Clear communication about sanctions is a practical suggestion, not an intervention whose effectiveness was demonstrated by this survey.

Digital tax socialization is positively associated with self-reported tax compliance (H_2: β = 0.265, t = 2.249, p = 0.025), with a small effect size (f^2 = 0.055). Improved understanding or confidence is a possible theoretical explanation, but neither was tested as a separate mechanism. Laksono & Rizal (2022) examine general tax socialization among individual taxpayers. Sukesi & Yunaidah (2020) examine socialization and services in a motor-vehicle-tax setting with satisfaction included in the model. These studies provide related context rather than identical tests of a digital-socialization measure among culinary MSMEs. Practical demonstrations and accessible information could be considered and evaluated in future assistance programs.

Coretax awareness is positively associated with self-reported tax compliance (H_3: β = 0.292, t = 2.627, p = 0.009), with a small effect size (f^2 = 0.093). Its effect size exceeds that of sanctions by only 0.001, which does not establish substantially greater practical importance. A possible TPB-informed interpretation is that awareness may relate to evaluations of digital administration or perceived ability to meet obligations. Attitude, control, readiness, and actual Coretax use were not separately tested. Awareness, education, and literacy should not be treated as equivalent constructs, and the reported association does not demonstrate that technical assistance would cause improved compliance.

The model explains 52.8% of the variance in self-reported compliance, while 47.2% remains unexplained. Individual effect sizes are small. Tax knowledge, trust, service quality, economic conditions, and digital literacy are possible topics for future study, rather than measured explanations of the remaining variance. SRMR is 0.058. The verified SmartPLS 3 blindfolding result is Q^2 = 0.327 with omission distance 7, indicating predictive relevance within that sample-reuse assessment without establishing prediction on new data.

CONCLUSION

This cross-sectional study examined tax sanctions, digital tax socialization, and Coretax awareness in relation to self-reported tax compliance among 181 analyzed culinary MSME response records in Medan Timur District. Positive associations were observed for tax sanctions (H_1: β = 0.284, t = 2.838, p = 0.005), digital tax socialization (H_2: β = 0.265, t = 2.249, p = 0.025), and Coretax awareness (H_3: β = 0.292, t = 2.627, p = 0.009). These findings concern associations and do not establish causal effects.

The three predictors explain 52.8% of the variance in Tax Compliance (R^2 = 0.528; adjusted R^2 = 0.520). Although all three relationships are statistically significant, their effect sizes are classified as small, namely 0.093 for Coretax Awareness, 0.092 for Tax Sanctions, and 0.055 for Digital Tax Socialization. Therefore, statistical significance should not be interpreted as indicating a large practical effect. Coretax Awareness has the largest effect size numerically, but its difference from Tax Sanctions is very small.

TPB helps interpret the observed associations; the complete theory was not tested because attitude, subjective norm, perceived behavioral control, and intention were not separately measured. The study is limited to one district and a cross-sectional questionnaire design. Shared self-report data may be susceptible to common-method bias, and compliance was not corroborated by tax records. The administered item wording, source adaptation, and sampling and field procedures remain undocumented, limiting interpretation of the digital socialization and Coretax-awareness constructs and their reflective specification. Actual Coretax usage and demographic profiles were not available. The exported bootstrap used 500 resamples; more resamples would improve numerical stability but were not run for this revision. Blindfolding Q^2 does not establish out-of-sample performance. Future studies should use fully documented measures, verified administrative outcomes, broader coverage, longitudinal designs, and out-of-sample prediction assessment.

RECOMMENDATION

The Directorate General of Taxes and local tax offices may consider practical assistance for culinary MSMEs, covering Coretax account activation, transaction documentation, relevant tax calculation, payment, and electronic filing according to each business's applicable obligations. Delivery may combine simple-language materials, short video tutorials, interactive assistance sessions, and follow-up support. These are recommendations for future implementation and evaluation, not interventions tested by this study. Any pilot program should assess participation, understanding, system-use difficulties, and subsequent verified compliance outcomes before claims of effectiveness are made.

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