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Tax Awareness, Tax Knowledge, Tax Penalties, and Tax Payment Motivation Among Msmes in Medan Petisah District

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ABSTRACT

This research investigates the influence of tax consciousness, taxation knowledge, and tax sanctions on the willingness to remit taxes among Micro, Small, and Medium Enterprises (MSMEs) operating in Medan Petisah District. A quantitative methodology was adopted, utilizing primary information gathered through questionnaire administration to a saturated sample comprising 74 MSMEs. Participants were selected according to specific eligibility requirements, including operating an active business within Medan Petisah District, holding ownership or direct responsibility for financial management and taxation affairs, possessing relevant experience in tax payment decisions, and voluntarily completing the research instrument. The collected information was processed using SPSS through instrument validity and reliability assessments, descriptive analysis, multiple linear regression, partial significance testing (t-test), simultaneous significance testing (F-test), and coefficient of determination (R^2) analysis. The findings demonstrate that tax consciousness, taxation knowledge, and tax sanctions each exhibit a positive and statistically significant association with taxpayers' motivation to fulfill their payment obligations. Collectively, these three explanatory variables also demonstrate a statistically significant influence on tax payment motivation, as evidenced by the F-statistic of 27.013 ($df = 3, 70$; $p < 0.001$).

Keywords: Smart Taxpayer Behavior, Tax Awareness, Tax Knowledge, Tax Sanctions, Tax Payment Motivation, MSMEs.

INTRODUCTION

Taxation is a major source of state revenue that supports national development. The government continues to improve tax administration through digitalization and simplified procedures. However, tax revenue also depends on taxpayer compliance, particularly among Micro, Small, and Medium Enterprises (MSMEs). Medan Petisah District is a relevant research setting due to its economic activity and growing MSME sector. Smart Taxpayer Behavior reflects taxpayers' awareness, knowledge, and ability to fulfill their tax obligations consistently.

A preliminary survey conducted in July 2026 among 30 randomly selected MSME operators in Medan Petisah District found that 20 respondents (66.7%) prioritized business needs over tax payments, 18 (60%) perceived taxes as a financial burden, 16 (53.3%) postponed payments until administrative documents were needed, and 14 (46.7%) paid taxes only after receiving warnings. These findings apply only to the surveyed respondents and suggest potential problems with tax payment motivation.

Tax payment motivation refers to internal and external factors that encourage voluntary fulfillment of tax obligations (Ariestiani et al., 2024). Tax awareness may strengthen motivation by encouraging conscious compliance (Priyatna, 2023), while tax knowledge helps taxpayers understand regulations and payment procedures (Aji et al., 2024). Tax penalties may also encourage compliance by discouraging violations (Ningsih et al., 2024). However, preliminary observations indicated that 18 respondents (60%) were unfamiliar with applicable tax penalties, while 16 (53.3%) had limited awareness of the likelihood of penalties for noncompliance.

Previous studies examined tax payment motivation through various factors. Anggraini & Herianti (2022) identified significant effects of self-assessment systems and taxpayer awareness, while Rahmadinia et al. (2024) found significant effects of tax knowledge, self-assessment systems, and tax penalties. Other studies investigated tax service quality, education, and religiosity (Suryawati et al., 2024; Suryanggala et al., 2022). However, further research is needed to examine these variables among MSME operators in specific local contexts.

Therefore, this study aims to examine the individual and simultaneous effects of tax awareness, tax knowledge, and tax penalties on tax payment motivation among MSME operators in Medan Petisah District, providing empirical evidence on factors associated with their motivation to fulfill tax obligations.

LITERATURE REVIEW

Tax Payment Motivation

Tax payment motivation refers to internal and external forces that encourage taxpayers to fulfill their obligations (Ariestiani et al., 2024). Motivation directs and sustains goal-oriented behavior and is influenced by factors such as taxpayer awareness (Wibowo, 2022; Artamoni, 2022). Following Pratiwi & Sinaga (2023), it is measured through seeking tax information, registering for an NPWP, paying outstanding taxes, and preparing payment documents. Higher scores indicate stronger tax payment motivation.

Tax Awareness

Taxpayer awareness refers to understanding and voluntarily complying with tax regulations (Priyatna, 2023; Putri et al., 2023). It includes recognizing tax obligations and willingness to comply (Iswerdiningrum & Andayani, 2024). Following Amelia & Saepuloh (2025), it is measured through five indicators: moral responsibility, contribution to national development, timely payment, awareness of legal consequences, and trust in government transparency. These indicators reflect taxpayers' understanding of their civic responsibilities and the importance of taxation.

Tax Knowledge

Tax knowledge refers to understanding tax concepts, regulations, obligations, and payment procedures (Aji et al., 2024). It includes knowledge of tax laws, incentives, rights, and obligations (Putri, 2022; Astuti & Muliyani, 2024). Following Pratiwi & Sinaga (2023), it is measured through basic tax knowledge, tax return (SPT) preparation and filing, and knowledge of tax penalties. To maintain construct validity, knowledge of penalties is distinguished from perceptions of sanction severity, which are measured separately under the tax penalties variable (X3).

Tax Penalties

Tax penalties are measures intended to enforce tax compliance and deter violations (Ningsih et al., 2024). They promote compliance and reflect taxpayers' perceptions of the consequences of tax violations (Saputri et al., 2025; Hapsari, 2023). Following Pratiwi & Sinaga (2023), tax penalties are measured through three indicators: administrative and criminal sanctions, the educational purpose of penalties, and sanction enforcement.

These indicators assess taxpayers' perceptions of penalty types, purposes, and implementation.

Self-Determination Theory (SDT), developed by Deci & Ryan (1985), distinguishes intrinsic and extrinsic motivation and provides a conceptual basis for understanding tax payment motivation. In this study, SDT serves as a conceptual reference rather than a theory being fully tested. Tax awareness may strengthen motivation by reinforcing taxpayers' sense of responsibility, while tax knowledge may reduce uncertainty about tax regulations and procedures (Magribi & Yulianti, 2022; Nasiroh & Afiqoh, 2022). Meanwhile, perceived tax penalties may encourage payment through extrinsic motivation to avoid sanctions. Since tax compliance reflects actual behavior rather than the motivation underlying it, this study examines the individual and simultaneous relationships of tax awareness, tax knowledge, and perceived tax penalties with tax payment motivation among MSME operators in Medan Petisah District. The proposed conceptual framework is presented in Figure 1:

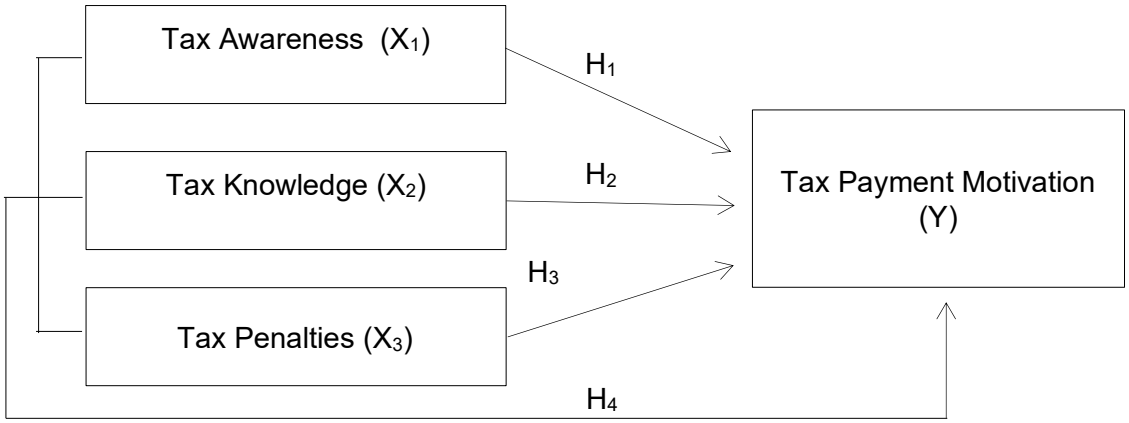


Figure 1. Conceptual Framework

Based on the conceptual framework in Figure 1, H1 to H3 examine the individual effects of tax awareness, tax knowledge, and tax penalties on tax payment motivation, respectively, while controlling for the other predictors. H4 tests whether these three variables jointly explain tax payment motivation among MSMEs in Medan Petisah District by assessing their simultaneous statistical significance, rather than an interaction effect or an additional variable. Accordingly, the following hypotheses are formulated:

H_1: Tax awareness has a significant partial effect on tax payment motivation among MSMEs in Medan Petisah District.

H_2: Tax knowledge has a significant partial effect on tax payment motivation among MSMEs in Medan Petisah District.

H_3: Tax penalties have a significant partial effect on tax payment motivation among MSMEs in Medan Petisah District.

H_4: Tax awareness, tax knowledge, and tax penalties simultaneously have a significant effect on tax payment motivation among MSMEs in Medan Petisah District.

RESEARCH METHOD

This study used a quantitative approach with primary questionnaire data collected from MSME operators in Medan Petisah District between June and September 2026. The population consisted of 74 MSMEs identified through the researcher's data collection as

of August 2026. Saturated sampling was applied, including all 74 MSMEs. Respondents had to operate an active MSME in the district, be responsible for financial administration or tax matters, have involvement in tax payment decisions, and agree to participate. One respondent was selected per MSME. All 74 questionnaires were returned and included in the analysis. Because the population was identified through the researcher's own data collection, the findings are limited to the participating MSMEs and cannot be generalized to all MSMEs in the district without verifying population coverage. Tax awareness, tax knowledge, and tax penalties were the independent variables, while tax payment motivation was the dependent variable.

Table 1.
Operationalization of Research Variables

Variable	Operational Definition	Indicators	Source
Tax Payment Motivation (Y)	The internal and external driving forces that encourage taxpayers to fulfill their tax obligations voluntarily and meet their tax responsibilities.	(1) Seeking information regarding taxation, (2) registering to obtain a Taxpayer Identification Number (NPWP), (3) paying outstanding tax obligations, (4) preparing the documents required for tax payment.	Ariestiani et al. (2024); Pratiwi & Sinaga (2023)
Tax Awareness (X1)	The extent to which taxpayers recognize, understand, and appreciate their tax responsibilities and demonstrate willingness to fulfill their obligations in accordance with applicable regulations.	(1) Belief that paying taxes is a moral obligation of every citizen, (2) perception that taxes contribute to national development, (3) responsibility to pay taxes on time, (4) understanding of the legal consequences of tax non-compliance, (5) trust in the transparency of the government's use of tax revenues.	Priyatna (2023); Amelia & Saepuloh (2025)
Tax Knowledge (X2)	The taxpayer's understanding of tax concepts, applicable regulations, tax obligations, and procedures for fulfilling tax responsibilities.	(1) Basic tax knowledge, (2) knowledge of tax return (SPT) preparation and filing, (3) knowledge of tax penalties.	Aji et al. (2024); Pratiwi & Sinaga (2023)
Tax Penalties (X3)	Taxpayers' perceptions of the sanctions imposed for violations of tax laws and regulations, including their preventive and educational functions.	(1) Administrative and criminal penalties, (2) penalties as a means of educating taxpayers, (3) penalties imposed on taxpayers who violate tax regulations.	Ningsih et al. (2024); Pratiwi & Sinaga (2023)

Table 1 presents the operational definitions and indicators of the four variables: tax payment motivation (Y), tax awareness (X1), tax knowledge (X2), and tax penalties (X3), adapted from previous studies. Data were collected using a 30-item questionnaire with a five-point Likert scale, comprising eight motivation items, ten awareness items, six knowledge items, and six penalty items. Composite scores were calculated by summing responses, with no missing data or reverse scoring. Data were analyzed using IBM SPSS Statistics version 26 through validity and reliability tests, descriptive statistics, classical assumption tests, multiple linear regression, t-tests, an F-test, and R^2 analysis.

RESULT AND DISCUSSION

Validity Test

The validity test was conducted using a pilot sample of 30 respondents excluded from the main sample to assess whether each questionnaire item measured its intended variable. Item validity was evaluated by comparing the calculated correlation coefficients

with the critical value at the specified significance level. The results for each research variable are presented below.

Table 2.
Validity Test Results

Statement	r_{hitung}	r_{tabel}	Kriteria	Keterangan
Tax Awareness				
1	0.756	0.361	$r_{hitung} > r_{tabel}$	Valid
2	0.817	0.361	$r_{hitung} > r_{tabel}$	Valid
3	0.876	0.361	$r_{hitung} > r_{tabel}$	Valid
4	0.847	0.361	$r_{hitung} > r_{tabel}$	Valid
5	0.888	0.361	$r_{hitung} > r_{tabel}$	Valid
6	0.853	0.361	$r_{hitung} > r_{tabel}$	Valid
7	0.878	0.361	$r_{hitung} > r_{tabel}$	Valid
8	0.864	0.361	$r_{hitung} > r_{tabel}$	Valid
9	0.824	0.361	$r_{hitung} > r_{tabel}$	Valid
10	0.890	0.361	$r_{hitung} > r_{tabel}$	Valid
Tax Knowledge				
1	0.820	0.361	$r_{hitung} > r_{tabel}$	Valid
2	0.547	0.361	$r_{hitung} > r_{tabel}$	Valid
3	0.749	0.361	$r_{hitung} > r_{tabel}$	Valid
4	0.819	0.361	$r_{hitung} > r_{tabel}$	Valid
5	0.777	0.361	$r_{hitung} > r_{tabel}$	Valid
6	0.844	0.361	$r_{hitung} > r_{tabel}$	Valid
Tax Penalties				
1	0.892	0.361	$r_{hitung} > r_{tabel}$	Valid
2	0.888	0.361	$r_{hitung} > r_{tabel}$	Valid
3	0.901	0.361	$r_{hitung} > r_{tabel}$	Valid
4	0.957	0.361	$r_{hitung} > r_{tabel}$	Valid
5	0.894	0.361	$r_{hitung} > r_{tabel}$	Valid
6	0.940	0.361	$r_{hitung} > r_{tabel}$	Valid
Tax Payment Motivation				
1	0.862	0.361	$r_{hitung} > r_{tabel}$	Valid
2	0.894	0.361	$r_{hitung} > r_{tabel}$	Valid
3	0.726	0.361	$r_{hitung} > r_{tabel}$	Valid
4	0.841	0.361	$r_{hitung} > r_{tabel}$	Valid
5	0.834	0.361	$r_{hitung} > r_{tabel}$	Valid
6	0.941	0.361	$r_{hitung} > r_{tabel}$	Valid
7	0.871	0.361	$r_{hitung} > r_{tabel}$	Valid
8	0.920	0.361	$r_{hitung} > r_{tabel}$	Valid

Source: Processed Research Data, 2026

Based on the table above, the validity test results for the Tax Payment Motivation variable indicate that all Pearson Correlation values are greater than the critical r-value (r-table) of 0.361. Therefore, all questionnaire items measuring Tax Payment Motivation are considered valid and suitable for use in the study.

Reliability Test
The reliability test used a pilot sample of 30 MSME operators in Medan Petisah District in August 2026. These respondents met the main study's eligibility criteria but were excluded from the final sample of 74 respondents. Internal consistency was assessed using Cronbach's alpha, with the acceptance threshold based on an established methodological reference. Questionnaire items were also reviewed for repetitive wording, particularly in scales with high alpha values (Wahyuni, 2025). The results are presented below.

Table 3.
Reliability Test Results

Variable	Cronbach's Alpha	N of Items
Tax Awareness	0.956	10
Tax Knowledge	0.858	6
Tax Penalties	0.956	6
Tax Payment Motivation	0.950	8

Source: Processed Research Data, 2026

Based on the table above, the reliability test results indicate that the reliability coefficient for the Tax Awareness variable is 0.956, Tax Knowledge is 0.858, Tax Penalties is 0.956, and Tax Payment Motivation is 0.950. All of these values exceed the threshold of 0.60. Therefore, it can be concluded that all variables demonstrate acceptable reliability and are considered reliable for use in this study.

Descriptive Statistics
The results of the descriptive statistical analysis are presented in the following table:

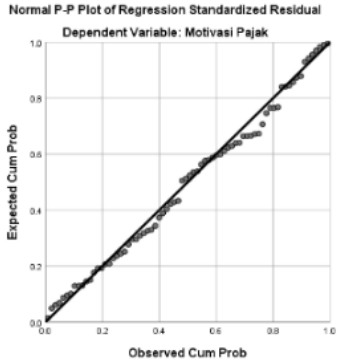
Table 4.
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Awareness	74	20	44	32.08	6.243
Tax Knowledge	74	12	27	19.20	4.058
Tax Penalties	74	9	28	20.41	3.913
Tax Motivation	74	15	36	26.46	4.821
Valid N (listwise)	74				

Source: Processed Research Data, 2026

The descriptive statistics show that all 74 respondents were included in the analysis. Tax awareness had a mean of 32.08 (SD = 6.243), with scores ranging from 20 to 44. Tax knowledge had a mean of 19.20 (SD = 4.058), ranging from 12 to 27. Tax penalties had a mean of 20.41 (SD = 3.913), ranging from 9 to 28. Tax payment motivation had a mean of 26.46 (SD = 4.821), with scores ranging from 15 to 36.

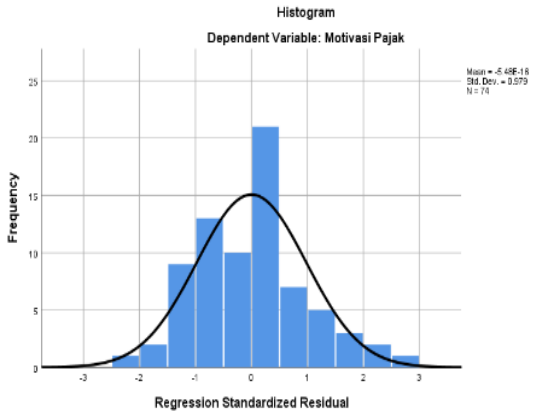
Normality Test
The residual normality assessment was performed to determine whether the regression model's residual terms exhibited a normal distribution. This assumption was examined through a histogram, a regression Normal Probability Plot, and the One-Sample Kolmogorov-Smirnov test. A histogram displaying a bell-shaped curve, together with plotted observations positioned approximately along the diagonal reference line, provides an indication that the residuals conform to a normal distribution (Wahyuni, 2021). The histogram results are presented below:



Source: Processed Research Data, 2026

Figure 2. Normal Probability Plot Regression Graph

Based on the graph above, the points are distributed around the diagonal line and follow its direction. Therefore, it can be concluded that the residuals in the regression model are normally distributed and satisfy the normality assumption.



Source: Processed Research Data, 2026

Figure 3. Histogram Graph

Based on the graph above, the curve appears symmetrical and resembles a bell-shaped distribution, with no apparent tendency toward either the left or right side. Therefore, it can be concluded that the residuals in the regression model are normally distributed and satisfy the normality assumption.

The results of the normality test using the One-Sample Kolmogorov-Smirnov test are presented below:

Table 5.
One-Sample Kolmogorov-Smirnov Test

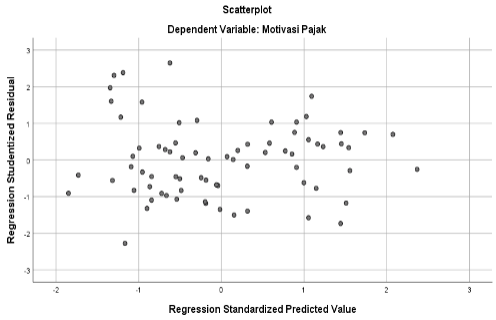
		Unstandardized Residual
N		74
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.28175328
Most Extreme Differences	Absolute	.080
	Positive	.080
	Negative	-.032
Test Statistic		.080
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
Source: Processed Research Data, 2026

Based on Table 5, the Kolmogorov-Smirnov normality test for the regression residuals yielded D = 0.080, n = 74, and p ≥ 0.200, as indicated by the SPSS footnote. Since the significance level is at least 0.05, there is insufficient evidence to reject the assumption of residual normality. The histogram and normal P-P plot provide supporting visual evidence for this assumption, although they do not prove that the residuals are normally distributed.

Heteroscedasticity Test
The heteroscedasticity test was conducted to determine whether the regression model's residual variance was constant across observations. A good regression model satisfies the homoscedasticity assumption, meaning that the residual variance remains constant. Heteroscedasticity occurs when residual variance varies, potentially affecting the

reliability of statistical inference and hypothesis testing (Wahyuni, 2021). The test results are presented in the following table.



Source: Processed Research Data, 2026

Figure 4. Scatterplot Graph

Based on the scatterplot presented above, the points are randomly distributed and do not form any clear pattern, with the points distributed both above and below zero on the Y-axis. This indicates that there is no heteroscedasticity in the regression model.

Multicollinearity Test

The multicollinearity test was conducted to determine whether there is a strong correlation among the independent variables in the regression model. This test is performed to ensure that the independent variables do not exhibit excessive linear relationships (Wahyuni, 2025). The results of the multicollinearity test are presented in the following table:

Table 6.
Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Tax Awareness	.771	1.296
	Tax Knowledge	.753	1.328
	Tax Penalties	.973	1.028

a. Dependent Variable: Tax Motivation
Source: Processed Research Data, 2026

Based on the table above, all variables have tolerance values greater than 0.1 and VIF values less than 10. Therefore, it can be concluded that no multicollinearity problem was identified.

Multiple Linear Regression Analysis

Multiple regression analysis was employed to examine the associations between the explanatory variables and the outcome variable, evaluate their respective effects, and estimate the dependent variable's value based on the independent variables incorporated into the regression model. The findings of this analysis are displayed in the following table:

Table 7.
Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	1.776	3.263	
	Tax Awareness	.444	.072	.575
	Tax Knowledge	.289	.111	.243
	Tax Penalties	.240	.102	.195

a. Dependent Variable: Tax Motivation
Source: Processed Research Data, 2026

Tax Payment Motivation = 1.776 + 0.444 Tax Awareness + 0.289 Tax Knowledge + 0.240 Tax Penalties + e

The constant (α) of 1.776 denotes the regression model's estimated intercept and carries no direct substantive meaning, as a predictor score of zero lies beyond the observed ranges. The coefficient for Tax Awareness (B = 0.444) signifies that a one-point rise in the Tax Awareness score corresponds to a 0.444-point increase in Tax Payment Motivation, assuming Tax Knowledge and Tax Penalties remain unchanged. Likewise, the Tax Knowledge coefficient (B = 0.289) indicates that a one-point improvement in its score corresponds to a 0.289-point increase in Tax Payment Motivation, with the remaining predictors held constant. Furthermore, the Tax Penalties coefficient (B = 0.240) suggests that a one-point increase in its score corresponds to a 0.240-point rise in Tax Payment Motivation, while Tax Awareness and Tax Knowledge are maintained at constant levels.

Partial Hypothesis Testing (t-Test)
The partial test is used to assess the significance of the regression coefficients individually. Partial testing is conducted to determine the individual effects of the independent variables on the dependent variable by examining the t-value at a 5% significance level (Wahyuni, 2025). The results of the partial hypothesis testing are presented in the following table:

Table 8.
Partial Hypothesis Testing

Model		t	Sig.
1	(Constant)	.544	.588
	Tax Awareness	6.206	<.001
	Tax Knowledge	2.592	.012
	Tax Penalties	2.361	.021

a. Dependent Variable: Tax Motivation
Source: Processed Research Data, 2026

At α = 0.05 (two-tailed), the critical t-value is 1.994, based on 70 degrees of freedom (df = 74 − 3 − 1). Tax Awareness (t = 6.206; p < 0.001), Tax Knowledge (t = 2.592; p = 0.012), and Tax Penalties (t = 2.361; p = 0.021) all exceed the critical t-value and have significance levels below 0.05. Therefore, all three variables have statistically significant effects on Tax Payment Motivation.

Simultaneous Hypothesis Testing (F-Test)
The F-test is used to determine the simultaneous effect of all independent variables on the dependent variable. This test determines whether the independent variables included in the model collectively have a significant effect on the dependent variable (Wahyuni, 2018). The results of the F-test are presented below:

Table 9.
Simultaneous Hypothesis Testing

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	910.175	3	303.392	27.013	<.001[b]
	Residual	786.203	70	11.231		
	Total	1696.378	73			

a. Dependent Variable: Tax Motivation
b. Predictors: (Constant), Tax Penalties, Tax Awareness, Tax Knowledge
Source: Processed Research Data, 2026

At α = 0.05, the critical F-value is 2.736 (df1 = 3; df2 = 70). The calculated F-value of 27.013 exceeds this threshold, with $p < 0.001$. Thus, H_0 is rejected and H4 is supported, indicating that Tax Awareness, Tax Knowledge, and Tax Penalties jointly have a significant effect on Tax Payment Motivation. This result confirms that at least one regression coefficient differs from zero but does not establish an interaction or synergistic effect among the predictors.

Coefficient of Determination

The coefficient of determination indicates how effectively the independent variables account for variations in the dependent variable. Its value ranges from 0 to 1, with values approaching 1 reflecting greater explanatory power of the regression model (Wahyuni, 2018). The results of the coefficient of determination test are presented in the following table:

Table 10.
Coefficient of Determination Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732[a]	.537	.517	3.351

a. Predictors: (Constant), Tax Penalties, Tax Awareness, Tax Knowledge
b. Dependent Variable: Tax Motivation
Source: Processed Research Data, 2026

The analysis results show an R^2 value of 0.537, indicating that Tax Awareness, Tax Knowledge, and Tax Penalties collectively explain 53.7% of the variation in Tax Payment Motivation scores within the sample. The remaining 46.3% represents unexplained sample variation, which may reflect factors not included in the model, measurement error, and random variation. Meanwhile, the Adjusted R^2 value of 0.517 indicates that the model explains 51.7% of the variation after adjusting for the number of predictors and sample size. These results describe the model's explanatory capacity and do not establish causal relationships between the predictors and Tax Payment Motivation.

DISCUSSION

Tax Awareness and Tax Payment Motivation

Tax Awareness was positively and significantly associated with Tax Payment Motivation among MSME operators in Medan Petisah District (t = 6.206), ($p < 0.001$); therefore, H1 is supported. Higher tax awareness was associated with greater payment motivation, holding other variables constant. This finding suggests that understanding tax responsibilities and the role of taxation in national development may encourage voluntary payment. However, preliminary observations of delayed payments may also reflect cash-flow constraints, administrative difficulties, and limited tax knowledge. Although Tax Awareness had the largest standardized coefficient (beta = 0.575), its superiority as a policy target remains unconfirmed because coefficient differences were not statistically tested. The cross-sectional design also limits conclusions to associations rather than causation.

Tax Knowledge and Tax Payment Motivation

Tax Knowledge was positively and significantly associated with Tax Payment Motivation among MSME operators in Medan Petisah District (t = 2.592), ($p = 0.012$); therefore, H2 is supported. Greater tax knowledge may reduce uncertainty about regulations, payment procedures, and reporting requirements, encouraging taxpayers to fulfill their obligations. Preliminary observations indicated that some MSME operators lacked knowledge of

penalties for late payments and reporting. However, tax knowledge is multidimensional, and payment motivation may also be influenced by financial constraints and administrative difficulties. As the study used an observational design, the findings indicate an association rather than causation.

Tax Penalties and Tax Payment Motivation
Tax Penalties were positively and significantly associated with Tax Payment Motivation among MSME operators in Medan Petisah District (t = 2.361), (p = 0.021); therefore, H3 is supported. Taxpayers who perceive penalties as clear and enforceable may be more motivated to pay taxes to avoid sanctions, reflecting extrinsic motivation. Preliminary observations indicated that some MSME operators lacked knowledge of penalties and enforcement likelihood. Although Saputri et al. (2025) examined tax penalties in relation to tax compliance, their findings do not directly establish the relationship with payment motivation. Financial capacity, tax knowledge, and enforcement perceptions may also influence motivation. Thus, the results indicate an association rather than proof that stricter penalties increase motivation.

Tax Awareness, Tax Knowledge, Tax Penalties, and Tax Payment Motivation
The simultaneous test showed that Tax Awareness, Tax Knowledge, and Tax Penalties jointly and significantly predicted Tax Payment Motivation among MSMEs in Medan Petisah District (F = 27.013 > 2.736), (p < 0.001); therefore, H4 is supported. The findings relate to Sahara et al. (2025) on taxpayer motivation and Saputri et al. (2025) on tax compliance, although differences in outcomes and models limit direct comparisons. The coefficient of determination (R^2 = 0.537) indicates that the three variables explain 53.7% of the variation in Tax Payment Motivation, while the remaining 46.3% is unexplained by the model. The adjusted (R^2) of 0.517 accounts for the number of predictors and sample size. The unexplained variation may reflect omitted variables, measurement error, or random variation.

CONCLUSION

Tax awareness, tax knowledge, and tax penalties were individually and jointly positively and significantly associated with tax payment motivation among MSME operators in Medan Petisah District. The model explained 53.7% of the variation in tax payment motivation (R^2 = 0.537), with an adjusted (R^2) of 0.517. The remaining variation may reflect other factors, measurement error, and random variation. However, the findings indicate associations rather than causation. The study is limited by its sample of 74 MSME operators, potential self-reporting bias, and cross-sectional design. Furthermore, tax payment motivation does not necessarily reflect actual compliance behavior. Future research should expand sampling coverage, use longitudinal designs, and incorporate verified tax payment or reporting records to assess whether motivation translates into actual compliance.

RECOMMENDATIONS

MSME operators in Medan Petisah District are encouraged to improve their understanding of tax obligations, payment procedures, reporting requirements, and applicable penalties through guidance from the Directorate General of Taxes (DGT) and tax education programs. The DGT could provide targeted training, practical administrative assistance, and demonstrations of digital tax services. The effectiveness of these initiatives could be evaluated through pre- and post-training assessments and participant feedback. These recommendations are proposed measures, as their effectiveness was not tested in this study. Future research could examine additional factors, such as business income, tax service quality, perceived ease of payment, and access to digital tax services. Larger, more diverse samples and longitudinal designs

could improve generalizability and track changes in tax payment motivation. Comparing motivation scores with verified tax payment and reporting records could also clarify whether motivation translates into actual tax compliance.

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