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Exploring Local Taxpayer Compliance from an Administrative Law Perspective: The Effects of Tax Literacy, Tax Regulatory Outreach, and Perceived Fairness of Tax Collection in Batam

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Abstract

This study examines local taxpayer compliance in Batam from an administrative law perspective by testing the effects of tax literacy, tax regulatory outreach, and perceived fairness of tax collection. The study is motivated by the need to strengthen local own-source revenue, which requires compliance that is not merely formal but also grounded in procedural legitimacy in tax-collection practices. An explanatory quantitative design was employed. A total of 150 questionnaires were collected from registered local taxpayers who actively interacted with the local tax system; after screening for completeness and response consistency, 120 responses were deemed eligible for analysis. The data were analyzed using PLS-SEM (SmartPLS) through measurement-model and structural-model assessment. The results indicate that tax literacy, tax regulatory outreach, and perceived fairness of tax collection all have positive and significant effects on local taxpayer compliance. Among these predictors, perceived fairness of tax collection emerges as the most influential determinant, underscoring the importance of procedural fairness, transparency, and equal treatment in shaping compliance behavior. In addition, the model demonstrates adequate explanatory power, predictive relevance, and overall model fit. The findings suggest that improving local taxpayer compliance requires an integrated strategy combining stronger tax literacy, better-designed regulatory outreach, and reforms in service quality and tax-collection procedures. Theoretically, this study enriches the literature on local tax compliance from an administrative law perspective, particularly with respect to procedural justice and the legitimacy of tax collection. Practically, the findings can inform policy strategies aimed at strengthening taxpayer literacy, designing more effective regulatory outreach, and

improving the procedural fairness of tax-collection services in order to enhance compliance and the quality of local tax governance in Batam City.

Keywords: *Tax Literacy; Tax Regulatory Outreach; Perceived Fairness of Tax Collection; Local Taxpayer Compliance; Batam Local Taxes*

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INTRODUCTION

Fiscal decentralization positions local taxes as a principal instrument of regional financial autonomy and a prerequisite for the sustainability of public services (Kurniadi, 2012; Rondinelli, 1983). Within the framework of Law No. 1 of 2022 on Financial Relations between the Central Government and Regional Governments (HKPD), local governments are granted broader scope to optimize local own-source revenue. However, such optimization depends on taxpayer compliance that is recurrent, long-term, and institutionally sustained.

Against this background, local governments continue to face a longstanding dilemma over whether higher compliance is better pursued through a deterrence-based approach or through responsive administration that strengthens voluntary compliance (Rondinelli, 1981). At this point, compliance should not be treated merely as an economic issue, but also as a matter of governance and administrative legitimacy. Accordingly, the study of local taxpayer compliance must place administrative-law dimensions and behavioral dimensions of compliance in balanced perspective.

From an administrative law standpoint, tax collection is a coercive state-citizen relationship that must nevertheless remain subject to the principles of legality, procedural certainty, and protection of citizens' rights (Temchyshyna, 2022). A central debate arises when collection effectiveness is set against the need to preserve due process: enforcement strategies that overemphasize revenue outcomes risk generating perceptions of procedural unfairness, which in turn may weaken the legitimacy of administrative tax decisions (Belegu & Fejzullahu, 2023; John Ayoola et al., 2023).

Grewal (2014) work on procedural rights in tax administration emphasizes that procedural design, clarity of rules, access to information, and objection mechanisms are not mere formalities; rather, they are institutional devices that both help citizens comply and protect them from arbitrariness. In a related vein, de Cogan (2015) argues taxpayer compliance should be understood as the outcome of an interaction between the quality of administrative procedures and the social acceptance of local fiscal policy. In this sense, compliance parameters may reflect the quality of local good governance.

At the same time, explanations of tax compliance have evolved rapidly and are increasingly framed through the interaction between power and trust in the authority (Tantriangela & Setyowati, 2023). The debate between deterrence and voluntary compliance is sharpened by the Slippery Slope Framework, which suggests that compliance is more likely to emerge when authorities possess enforcement capacity while also building trust through fair treatment and predictable procedures (Chen, 2021; Rashid et al., 2021). Studies by Aulia et al (2022) and Darmayasa & Hardika (2024) shows the digital modernization of tax systems reshapes the trust-power relationship, and that compliance does not automatically improve when modernization is not accompanied by effective communication and perceptions of legitimacy. Thus, Oktavianti et al (2025)

suggest tax compliance is better understood as institutional behavior shaped by cognitive factors such as understanding, relational factors such as trust and fairness, and administrative factors such as the quality of rules.

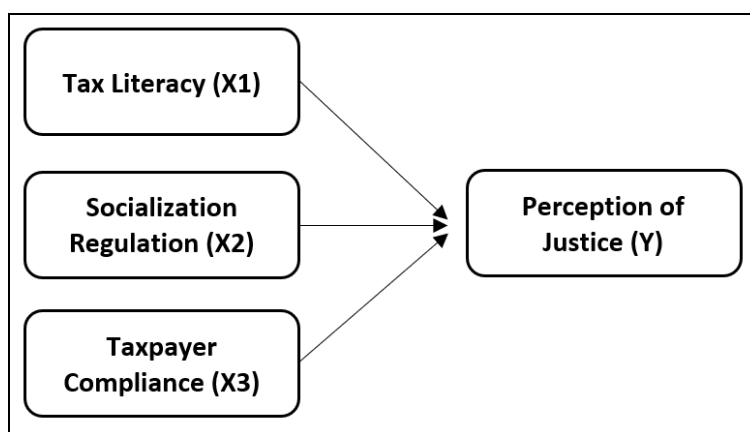
One of the relevant determinants is tax literacy, understood as the taxpayer's ability to comprehend tax objects, procedures, rights and obligations, and administrative consequences (Tantriangela & Setyowati, 2023; Tibrani et al., 2024). Yet an important debate remains over whether literacy alone can serve as a rational precondition for compliance and taxpayer awareness, because it must operate alongside perceptions of fairness, social norms, and service experience (Agusti & Rahman, 2023). In the Indonesian context, national studies consistently show that tax literacy tends to correlate positively with compliance, although the strength of that relationship may change once relational variables such as trust or tax morale are taken into account (Herawati et al., 2022; Michael et al., 2025). Tax literacy should therefore be positioned as an important potential factor whose effectiveness depends on how tax authorities manage communication with taxpayers in the local tax system.

A second determinant is tax regulatory outreach, namely the communicative and educational dissemination of tax rules so that legal norms do not remain as abstract text but instead become practical guidance. A key academic debate concerns whether such outreach should be mass-based or instead segmented, targeted, and interactive. Findings from Indonesia by Michael et al (2025); Nuryadi et al (2024) and Putra et al (2024) indicates regulatory outreach strengthens compliance, although its effectiveness depends on quality, channel accessibility and source credibility. Accordingly, tax regulatory outreach should be assessed not only in terms of frequency, but also in terms of communicative quality and access to information, because administrative law functions not merely as an instrument of coercion but also as a guiding institutional framework.

Perceived fairness of tax collection serves as a bridge between formal legality and social legitimacy. The literature underscores that fairness has distributive and procedural dimensions that affect compliance behavior (Güzel et al., 2019). Yet a persistent dilemma remains, because a policy that is legally valid will not always be socially accepted when taxpayers perceive the procedure as inconsistent or insufficiently transparent (Gobena & Van Dijke, 2017).

Also, Rahmawati et al (2024) and Shelvi & Rachmawati (2025) show that the procedural fairness can strengthen trust in authorities and increase willingness to comply, even in the presence of monitoring. The relationship among procedural fairness, trust, and compliance has therefore been confirmed, making fairness a highly relevant determinant of local taxpayer compliance. On this basis, the present study positions tax literacy, tax regulatory outreach and perceived fairness of tax collection as three pillars representing the cognitive, administrative, and normative dimensions of local taxpayer compliance, and tests them quantitatively through PLS-SEM in order to map the relationships among constructs more comprehensively.

Figure 1. Research Framework



Specifically, figure 1 presents the research framework by illustrating the relationships between the exogenous variables and the endogenous variable. The measurement indicators for each variable are presented in Table 1.

Table 1. Research Variables and Indicators

Variable	Indicator	Description
Tax Literacy (X1)	X1.1	Understanding of tax objects and subjects subject to local tax obligations
	X1.2	Understanding of local tax rates and tax bases
	X1.3	Understanding of applicable payment and/or reporting procedures for local taxes
	X1.4	Understanding of deadlines and required documents
	X1.5	Understanding of consequences and taxpayer rights
Tax Regulatory Outreach (X2)	X2.1	Clarity of tax-regulatory information
	X2.2	Accessibility of tax information
	X2.3	Intensity/exposure to regulatory outreach
	X2.4	Consistency and timeliness
	X2.5	Support/assistance
Perceived Fairness of Tax Collection (X3)	X3.1	Distributive fairness
	X3.2	Equality of treatment
	X3.3	Procedural fairness
	X3.4	Informational fairness / transparency
	X3.5	Respectful and professional treatment
Local Taxpayer Compliance (Y)	Y1	Timeliness
	Y2	Accuracy of the amount paid

Y3	Procedural compliance
Y4	Compliance despite low supervision
Y5	Commitment to sustained compliance

Although studies on tax compliance in Indonesia are relatively abundant, several important gaps remain. First, many studies focus on central taxes or on specific contexts such as MSMEs, vehicles, and advertising taxes, and they tend to examine literacy as an isolated variable without integrating the administrative-law dimension, particularly the ways in which regulatory outreach and perceived fairness of tax collection shape the legitimacy of compliance. Second, studies that test literacy, outreach, and fairness simultaneously in the local-tax context remain limited, even though local tax collection is characterized by a particularly strong legal and public-administrative relationship. Third, many prior studies rely on conventional regression techniques, meaning that the interrelationships among latent constructs and the relative contribution of each determinant have not been fully captured. For that reason, a structural model based on PLS-SEM is needed to estimate perceptual constructs and compliance behavior more appropriately.

Accordingly, this study aims to analyze and explain empirically the effects of tax literacy, tax regulatory outreach, and perceived fairness of tax collection on local taxpayer compliance in Batam City using a quantitative PLS-SEM (SmartPLS) approach. More specifically, the study seeks to (i) test the significance and direction of the effects of the exogenous variables on compliance, (ii) identify the most dominant determinant shaping local taxpayer compliance, and (iii) formulate policy implications consistent with an administrative-law perspective, namely stronger regulatory outreach, enhanced literacy as a precondition for rational compliance, and improvements in procedural fairness so that local tax collection is not only fiscally effective but also legally legitimate and socially acceptable.

RESEARCH METHOD

This study employs an explanatory quantitative approach with a cross-sectional survey design to examine the effects of tax literacy (X1), tax regulatory outreach (X2), and perceived fairness of tax collection (X3) on local taxpayer compliance (Y) in Batam City. A quantitative approach was selected because it allows measurable, evidence-based testing of relationships among constructs through structural modeling.

Each variable was measured using a balanced set of indicators assessed on a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree." The indicators were adapted from previous literature, including administrative-law perspectives from Belegu and Fejzullahu (2023), Ayoola et al. (2023), and Temchyshyna (2022); literacy and outreach perspectives from de Cogan (2015), Grewal (2014), and Tantriangela and Setyowati (2023); and fairness perspectives from Guzel et al. (2019) and Gobena and Van Dijke (2017).

Data were collected cross-sectionally in order to capture the current conditions of taxpayers' attitudes, knowledge, and evaluations of tax regulations and collection practices, and then relate these to compliance behavior as part of civic obligation. Theoretically, taxation is viewed as making a strategic contribution to the optimization of local revenue and to the smooth functioning of

government administration and community economic development (Golosov et al., 2003; Mirrlees, 1976). The research design was therefore directed toward correlational analysis and hypothesis testing across variables (Creswell, 2009).

The population consisted of Batam taxpayers who met the study criteria based on the types of local taxes they paid, including hotel, restaurant, and advertising taxes. These taxpayers agreed to participate in the study. A total of 120 respondents met the criteria required for structural-model estimation. The sample size followed the recommendation of Hair et al (2014), the minimum sample should be at least 10 times the largest number of significant indicators in the model; accordingly, the number of respondents satisfied the minimum requirement for valid model estimation.

Data were analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS. PLS-SEM was chosen for several methodological reasons: (1) its ability to handle non-normal data, (2) its suitability for moderate sample sizes, and (3) its capacity to estimate relationships among latent variables simultaneously (Hair et al., 2017, 2019). The analysis consisted of two main stages: assessment of the measurement model (outer model) and assessment of the structural model (inner model).

In the outer-model assessment, convergent validity was examined through factor loadings, with a threshold of >0.70 , and Average Variance Extracted (AVE), with a threshold of >0.50 . Discriminant validity was evaluated using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT), with a threshold of <0.85 . Reliability was assessed using Composite Reliability (CR) and Cronbach's alpha, both of which were required to exceed 0.70. Once the validity and reliability of the measurement model had been established, the analysis proceeded to the structural model.

In the inner-model evaluation, predictive power was assessed through R^2 , which reflects the extent to which exogenous variables explain the variance of the endogenous variable. Predictive relevance was assessed through Q^2 . Hypotheses were tested using a bootstrapping procedure with 5,000 subsamples to evaluate the significance of the structural paths. Path coefficients, t-statistics, and p-values were used as the main metrics for determining whether the hypotheses were supported.

This study also adhered to ethical and scholarly standards. All participants provided informed consent before completing the questionnaire, confirming that their participation was voluntary and that their data would remain confidential. The findings were used solely for academic purposes, and the identities and personal information of respondents were protected throughout the study.

Overall, the quantitative design using PLS-SEM provides a detailed exploration of the mechanisms through which literacy, regulatory outreach, and fairness affect local taxpayer compliance in Batam. Ultimately, the findings are expected to clarify the explanatory reach of the theories employed and to offer actionable insights for the Regional Revenue Agency of Batam City in designing tax-collection arrangements that are more equitable, responsive, and inclusive.

RESULTS AND DISCUSSION

Outer Model Result

This study provides empirical evidence on local taxpayer compliance in Batam City by emphasizing the roles of tax literacy, tax regulatory outreach, and perceived fairness of tax collection as the principal determinants. The results section consolidates the key findings, examines their methodological implications,

and situates them within the broader study of local tax compliance and local-governance quality.

A total of 150 questionnaires were collected from registered local taxpayers who actively interacted with the local tax system. After screening for completeness and consistency, 120 responses were declared valid and suitable for further analysis. The respondents represented taxpayers from the hotel, restaurant/entertainment, advertising, and parking sectors, and were therefore considered adequate for assessing the study indicators.

Table 2. Distribution of Research Respondents

Taxpayer Sector	N	Percentage
Hotel	28	23.3%
Restaurant/Entertainment	42	35.0%
Advertising	25	20.8%
Parking	25	20.8%
Total	120	100.0%

The initial stage of analysis focused on evaluating the measurement model (outer model) in order to ensure instrument quality through tests of construct reliability and validity as the foundation for empirical analysis. In line with the research design, PLS-SEM was employed because it can simultaneously analyze relationships among latent variables and is relatively flexible in handling survey data with a moderate sample size without imposing overly strict distributional assumptions.

All 20 research indicators were evaluated to assess their ability to represent their respective constructs. The outer-model results are presented in Table 3 using the common criteria of outer loadings > 0.70, Cronbach's alpha > 0.70, Composite Reliability > 0.70, and Average Variance Extracted (AVE) > 0.50. These results were used to assess whether the research instrument had adequate reliability and validity before proceeding to structural-model testing.

The measurement-model results show that all study variables and indicators meet the required threshold values, indicating that the measurement model is suitable for further analysis (Table 3). This finding underscores the importance of sound construct quality in empirical research on local taxpayer compliance and provides a robust basis for examining inter-construct relationships in the Batam context.

Table 3. Outer Model Results

Construct	Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
			0.878	0.911	0.673
Tax Literacy (X1)	X1.1	0.820			
	X1.2	0.850			

	X1.3	0.790		
	X1.4	0.830		
	X1.5	0.810		
			0.879	0.911
	X2.1	0.840		
	X2.2	0.800		
	X2.3	0.780		
	X2.4	0.860		
	X2.5	0.820		
			0.882	0.914
	X3.1	0.810		
	X3.2	0.830		
	X3.3	0.850		
	X3.4	0.790		
	X3.5	0.840		
			0.896	0.923
	Y1	0.880		
	Y2	0.840		
	Y3	0.800		
	Y4	0.820		
	Y5	0.860		

Based on Table 4 (Fornell-Larcker Criterion), discriminant validity is fulfilled for all constructs in the model. This is evident from the diagonal values (the square roots of AVE) for each construct—namely X1 = 0.820, X2 = 0.820, X3 = 0.824, and Y = 0.840—which are higher than the correlations among constructs in the corresponding rows and columns. The construct Y (Local Taxpayer Compliance) has a square root of AVE of 0.840, which is higher than its correlations with X1 (0.730), X2 (0.760), and X3 (0.790). The same pattern appears for the other constructs, indicating that each construct adequately explains its own indicators and remains empirically distinguishable from the other constructs in the model.

The evidence is further strengthened by Table 5 (HTMT), which shows that all heterotrait-monotrait ratios fall below the common threshold of 0.85, namely X1-X2 = 0.742, X1-X3 = 0.688, X2-X3 = 0.719, X1-Y = 0.803, X2-Y = 0.781, and X3-Y = 0.836. Although the X3-Y pair has the highest HTMT value (0.836), it remains within an acceptable range and therefore does not indicate problematic overlap between constructs. Methodologically, the combination of the Fornell-Larcker and

HTMT results confirms that the measurement model has good discriminant validity, allowing the analysis to proceed more confidently to structural-model evaluation and hypothesis testing.

Table 4. Fornell-Larcker Criterion

Construct	X1	X2	X3	Y
X1	0.820			
X2	0.680	0.820		
X3	0.610	0.650	0.824	
Y	0.730	0.760	0.790	0.840

Table 5. HTMT Values

Construct	X1	X2	X3	Y
X1	-			
X2	0.742	-		
X3	0.688	0.719	-	
Y	0.803	0.781	0.836	-

Inner Model Result

The structural model (inner model) was subsequently assessed to evaluate the quality of the relationships among constructs in the research model, particularly the direct effects of the exogenous variables on the endogenous variable and the relative contribution of each path. At this stage, testing began with multicollinearity assessment through the Variance Inflation Factor (VIF) in order to ensure that excessive correlation among predictors did not bias the path estimates. In PLS-SEM, VIF values below 5 indicate the absence of problematic multicollinearity.

Based on Table 6, all predictors in the model—X1, X2, and X3—display VIF values within a safe range in relation to local taxpayer compliance (Y), namely 2.14, 2.06, and 2.22, respectively. Within the PLS-SEM framework, these values indicate that problematic multicollinearity is absent. Accordingly, the correlations among the exogenous constructs remain at a reasonable level and do not distort structural-model estimation.

Substantively, this finding is important because it shows that the respective contributions of tax literacy (X1), tax regulatory outreach (X2), and perceived fairness of tax collection (X3) can be estimated relatively independently in explaining variation in local taxpayer compliance (Y). In other words, when the path coefficients are tested at the subsequent bootstrapping stage, the observed effects are not driven by overlapping information among predictors, but instead reflect the empirical contribution of each construct more validly.

Table 6. Collinearity (VIF) of Predictors for Y

Predictor Path to Y	VIF	Remark
X1-Y	2.14	No multicollinearity problem
X2-Y	2.06	No multicollinearity problem
X3-Y	2.22	No multicollinearity problem

Table 6 presents the bootstrapping results. The analysis reports the direct effects of the variables, including path coefficients, standard deviations, t-statistics, 95% confidence intervals, significance (p-values), and effect sizes (f²). Following Chin (1998); Cohen (1998) and Hair et al (2014), F² values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively.

Based on Table 7, all structural paths exhibit positive path coefficients and are statistically significant, meaning that all hypotheses directed toward Y are supported.

The X1-Y path shows a positive path coefficient (beta) of 0.291, meaning that an increase in X1 is associated with an increase in local taxpayer compliance (Y) of 29.1%. Statistically, this relationship is significant, as indicated by a t-statistic of 2.901 (exceeding the 1.96 threshold at the 5% level) and a p-value of 0.000, which in academic reporting is written as $p < 0.001$. In addition, the 95% confidence interval, ranging from 0.092 to 0.487, does not cross zero, reinforcing the conclusion that the effect of X1 on Y is positive and stable. Thus, the hypothesis for the X1-Y path is accepted.

Substantively, this result indicates that X1 makes a meaningful contribution to shaping local taxpayer compliance behavior. The coefficient suggests a considerable effect, while STDEV = 0.018 indicates a relatively stable estimate in the bootstrapping procedure. Referring to the f² value of 1.175, the contribution of X1 to changes in the variance of Y can be categorized as very strong. This means that X1 is not merely a supporting factor in the model, but one of the main determinants that should be prioritized in strategies to improve local taxpayer compliance.

The X2-Y path has a positive path coefficient (beta) of 0.238, indicating that an increase in X2 is associated with an increase in local taxpayer compliance. This relationship is also statistically significant, as shown by a t-statistic of 2.504 and a p-value of 0.013, both of which satisfy the 5% significance threshold. The 95% confidence interval of 0.054-0.425 does not include zero, confirming the consistency of the positive effect. Accordingly, the X2-Y path meets the hypothesis-testing criteria and is accepted.

In terms of effect strength, the beta value of 0.238 positions X2 as a relevant predictor, although it is relatively weaker than X1 and X3. The STDEV value of 0.068 indicates greater variation in the estimate than in the X1-Y path, but it remains within an acceptable range and does not undermine the significance of the relationship. Meanwhile, f² = 0.269 indicates a medium-to-strong effect, showing that X2 makes a substantive contribution to Y even though it is not the most dominant predictor in the model. This finding suggests that interventions related to X2 remain important for strengthening compliance, especially when designed consistently and integrated with other, stronger factors.

The X3-Y path shows a path coefficient (beta) of 0.381, or 38.1%, which is the highest value among all predictors in the model. Statistically, this relationship is very strong, as reflected in a t-statistic of 4.128 and a p-value of 0.001, which is

significant at both the 1% and 5% levels. The 95% confidence interval of 0.207-0.557 lies entirely in the positive range, indicating stability in the direction of the effect during bootstrapping. Accordingly, the X3-Y path is accepted and is empirically the most convincing relationship in the structural model.

Analytically, the results confirm that X3 is the most dominant predictor in explaining variation in local taxpayer compliance, both in terms of the magnitude of the path coefficient and its statistical strength. The STDEV value of 0.064 indicates a sufficiently stable estimate, while $f^2 = 0.387$ places the effect of X3 in the large-effect category under common PLS-SEM criteria. This means that changes in X3 have a stronger impact on Y than changes in the other two predictors. Methodologically and practically, this suggests that strengthening the dimensions represented by X3 may be the most strategic intervention point for improving local taxpayer compliance in a more effective and sustainable way.

Table 7. Inner Model Results

Path	Path Coefficient	Standard Deviation (STDEV)	T-Statistic	P-Value	F2	95% CI		Decision
						2.5%	97.5%	
X1-Y	0.291	0.018	2.901	0.000	1.175	0.092	0.487	Accepted (+)
X2-Y	0.238	0.068	2.504	0.013	0.269	0.054	0.425	Accepted (+)
X3-Y	0.381	0.064	4.128	0.001	0.387	0.207	0.557	Accepted (+)

At the final stage of structural-model assessment, model quality was evaluated through R2, Q2, GoF, and SRMR to ensure that the model is not only significant at the path level but also demonstrates adequate explanatory power, predictive relevance, and overall fit. The results show that the R2 value for Y is 0.712, meaning that 71.2% of the variance in local taxpayer compliance can be explained jointly by tax literacy (X1), tax regulatory outreach (X2), and perceived fairness of tax collection (X3). Academically, this value can be categorized as substantial because it indicates that the model has strong explanatory capacity for the endogenous construct at the center of this study.

This interpretation is substantively important because it shows that taxpayer compliance in this context is not random, but is strongly influenced by a combination of cognitive factors (literacy), institutional-communicative factors (regulatory outreach), and normative-procedural factors (perceived fairness of collection). At the same time, approximately 28.8% of the variance in Y remains unexplained, indicating the possible influence of other factors outside the model, such as fiscal service quality, monitoring intensity, taxpayers' administrative experience, digital reporting capacity, business characteristics, and trust in institutions. Thus, the high R2 value still leaves room for further theoretical development without diminishing the strength of the current model.

The Q2 value of 0.481 further indicates that the model has good predictive relevance for the target variable. In the PLS-SEM framework, $Q2 > 0$ suggests predictive capability, and higher values indicate stronger predictive quality. With a

value of 0.481, the model is not only strong in explaining structural relationships within the sample but also has adequate capacity to predict variation in local taxpayer compliance based on the configuration of X1-X3. Methodologically, this strengthens the earlier bootstrapping results because the model is shown to be predictively relevant rather than merely statistically adequate within the sample.

To complete the evaluation of overall model performance, the Goodness of Fit (GoF) value was calculated using the formula $GoF = \sqrt{\text{average AVE} \times R^2}$. Using an average construct AVE of 0.683 and an R^2 value of 0.712, the resulting GoF value is 0.697. This indicates a strong combination of measurement-model quality and structural-model explanatory power.

The SRMR value of 0.067 also indicates adequate model fit because it is below the common threshold of 0.08. In other words, the average discrepancy between the observed correlation matrix and the matrix estimated by the model is relatively small, suggesting that the model specification is sufficiently representative of the data. Read integratively, the combination of $R^2 = 0.712$, $Q^2 = 0.481$, GoF approx. 0.697, and SRMR = 0.067 shows that the research model performs well in explanatory power, predictive relevance, and model fit, and is therefore appropriate as a basis for drawing theoretical implications and policy recommendations concerning local taxpayer compliance in Batam City.

Overall, the results show that the model developed in this study has adequate measurement quality and structural quality for explaining local taxpayer compliance in the context under investigation. All constructs are empirically distinguishable, free from collinearity problems, and supported by strong reliability, validity, and model adequacy. The findings confirm that tax literacy, tax regulatory outreach, and perceived fairness of tax collection jointly play important and complementary roles in shaping local taxpayer compliance behavior. Accordingly, the results provide a strong empirical foundation for the subsequent discussion of theoretical meaning, practical implications, and policy directions.

The findings indicate taxpayer compliance in Batam is more appropriately understood as the outcome of interaction among cognitive dimensions (tax literacy), institutional-communicative dimensions (regulatory outreach), and normative-relational dimensions (perceived fairness of tax collection), rather than as the result of a single factor. This pattern is important because it enriches the debate in tax-compliance studies, which is often split between compliance driven by monitoring and sanctions on the one hand, and compliance driven by understanding, legitimacy, and trust on the other.

The present results tend to support the latter position, although they do not entirely negate the former. In other words, compliance in the local-tax context cannot be explained solely by the threat of administrative sanctions; it is also shaped by the extent to which taxpayers understand their obligations, receive adequate regulatory information, and perceive the collection process as fair. This argument is consistent with the literature that treats compliance as a product of the relationship between individual capacity and the quality of institutional governance, and therefore cautions against overly legalistic readings of taxpayer behavior (Güzel et al., 2019; Tantriangela & Setyowati, 2023).

The significance of tax literacy confirms that compliance cannot be separated from taxpayers' ability to understand taxable objects, tax bases, procedures, deadlines, and administrative consequences. From the perspective of law and public policy, the finding suggests that non-compliance does not always reflect an intentional effort to avoid taxation, but may instead reflect limited understanding

of rules that are technically changing, layered, or presented in a format that is insufficiently operational.

At this point, the study aligns with the argument that literacy functions as a precondition for rational and consistent compliance (de Cogan, 2015; Grewal, 2014). At the same time, however, the findings leave room for criticism of the assumption that knowledge deficits alone provide the primary explanation. In practice, improved literacy will not automatically produce compliance if taxpayers perceive the system as unfair or the implementation of regulations as inconsistent. Tax literacy should therefore be read as an important factor whose effectiveness depends greatly on a credible institutional environment.

Meanwhile, the effect of tax regulatory outreach reinforces the importance of policy-communication quality in local tax administration. The results show that outreach that is clear, accessible, consistent, and accompanied by practical support contributes to stronger compliance behavior. Theoretically, this supports the view that regulations do not stop at the level of normative formulation, but require translation to the user level through communication that is understandable and applicable (Oktavianti et al., 2025).

In the local-government context, outreach is not merely a function of information dissemination, but also an instrument for reducing information asymmetry between authorities and taxpayers. Nonetheless, debate remains because some studies suggest that intensified outreach may have limited effects when the regulations themselves are viewed as complex, frequently changing, or insufficiently responsive to business conditions (Belegu & Fejzullahu, 2023). The contribution of the present findings therefore lies not simply in affirming the importance of outreach, but in stressing that its effectiveness depends on content quality, communication channels, the timeliness of updates, and the supporting capacity for consultative services.

The most salient finding of this study is the position of perceived fairness of tax collection as the strongest predictor. This strengthens the tradition of procedural-justice and tax-morale research that places fairness at the foundation of compliance legitimacy rather than treating it as a supplementary variable. When taxpayers believe that rules are applied equally, procedures are implemented consistently, calculations can be explained, and interactions with officers are conducted professionally, compliance is more likely to emerge as a response to institutional legitimacy rather than mere coercive pressure.

This finding is consistent with studies emphasizing the significance of distributive and procedural fairness in shaping compliance attitudes (Gobena & Van Dijke, 2017; Güzel et al., 2019). At the same time, the result challenges administrative approaches that rely too heavily on collection and supervision without improving service experience. In a city such as Batam, where business types are diverse and fiscal interaction is intense, even relatively small perceptions of unfairness can magnify resistance, reduce trust, and ultimately weaken long-term compliance.

Taken together, the results point to an important conceptual implication: local taxpayer compliance is a form of compliance mediated by governance quality, not merely a form of administratively enforced obedience. The variables tested in this study represent three layers of compliance preconditions: the ability to understand rules (literacy), the ability to access and process policy communication (regulatory outreach), and the belief that institutions act lawfully and fairly

(perceived fairness). This combination helps explain why policy strategies focused primarily on tighter control often produce fragile forms of compliance.

From a practical standpoint, government institutions and legal oversight bodies need to develop simultaneous intervention designs in the form of tax simplification and segmentation, a stronger ecosystem of responsive multi-channel outreach, and standardized service and procedural arrangements that reinforce perceptions of fairness. Thus, the findings are not only relevant for explaining the empirical setting under study, but also provide a strong argumentative basis for local tax-law and administrative reform oriented toward legitimacy, service quality, and the sustainability of compliance.

CONCLUSION

This study positions taxpayer compliance as a phenomenon shaped by the quality of interaction between business actors and the collecting institution, rather than merely as a consequence of formal legal obligation. The findings show that compliant behavior is more likely to develop when taxpayers possess an adequate understanding of the rules, receive clear and operational policy communication, and encounter tax-collection processes that are fair in practice. The main contribution of this study therefore lies in strengthening the argument that local tax compliance should be understood within a governance framework that combines cognitive, administrative, and normative dimensions. This perspective is important for local taxation studies because it helps avoid reductionist analyses that focus only on sanctions, while opening space for policy approaches more strongly oriented toward institutional legitimacy and the quality of public services.

From the standpoint of administrative-law and policy implications, the government needs to develop an integrated strategy for improving compliance. Intervention should not be limited to collection and supervision, but should also include sector-based tax-literacy strengthening, improved regulatory-outreach design, and the standardization of service treatment so that it is consistent, transparent, and accountable. Literacy programs should be presented in simple formats and practical guides that business actors can apply directly. Regulatory outreach should be positioned as a two-way communication process that allows clarification, consultation, and timely information updates. At the same time, fairness in tax collection must be maintained through uniform procedures, traceable explanations for tax assessments, and professional officer interactions. This combination of policies has the potential to generate stable compliance because it is built through understanding and trust rather than through short-term compliance induced solely by administrative pressure.

Nevertheless, the findings should be read in light of several limitations. The survey design does not yet allow the tracing of changes in compliance behavior over a longer period, especially following regulatory changes or service innovations. The use of perception-based questionnaire instruments also opens the possibility of response bias, including the tendency of respondents to provide answers deemed socially desirable. In addition, the respondent coverage, which focuses on local taxpayers in Batam, limits the generalizability of the findings to other regions with different economic characteristics, administrative capacities, and compliance cultures. These limitations do not diminish the value of the findings, but they do underscore the need for caution when drawing universal conclusions.

Based on these limitations, future research is recommended to expand the model by including other theoretically relevant factors, such as fiscal service quality, monitoring intensity, trust in local government, and taxpayers' digital

readiness. The use of longitudinal designs would be particularly helpful in assessing whether policy changes truly produce sustained shifts in compliance behavior. In addition, mixed-method approaches that combine quantitative surveys with in-depth interviews could provide richer insight into why taxpayers comply or fail to comply in concrete situations. Through these directions, research on local taxpayer compliance may move from merely identifying determinants toward developing more prescriptive, contextual, and applicable legal and policy models for improving administrative law and local tax governance.

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