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DETERMINANTS OF MOTOR VEHICLE TAX COMPLIANCE: AMNESTY, TRANSFER SERVICES, AND SERVICE QUALITY

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Abstract:

This study examines the association between taxpayers' perceptions of the Motor Vehicle Tax (PKB) amnesty program, the ease of Motor Vehicle Title Transfer Fee (BBNKB) services, service quality, and taxpayer compliance at SAMSAT Sleman. A quantitative associative cross-sectional design was employed using data from 100 service users selected purposively and surveyed with a five-point Likert questionnaire. The analysis included item validity and reliability tests, regression diagnostics, multiple linear regression, partial and simultaneous tests, and the coefficient of determination. Preliminary ordinary least squares estimates indicate that perceived PKB tax amnesty is negatively associated with compliance ($B = -0.121$; $p = 0.043$), whereas ease of BBNKB services ($B = 0.340$; $p < 0.001$) and service quality ($B = 0.252$; $p = 0.009$) are positively associated with compliance. Together, the three predictors explain 46.1% of the variance in compliance ($F = 27.346$; $p < 0.001$). Because the Glejser test indicates heteroskedasticity for the BBNKB variable, inference should be verified using HC3 robust standard errors or bootstrapping. Accordingly, the results should be interpreted as sample-level associations rather than evidence of causal effects.

Keywords: BBNKB services; Motor Vehicle Tax amnesty; SAMSAT Sleman; service quality; taxpayer compliance

INTRODUCTION

Motor vehicle tax is an important source of provincial revenue that supports the financing of public services in Indonesia. Its administration is governed by Law No. 1 of 2022, Government Regulation No. 35 of 2023, and Yogyakarta Special Region Regulation No. 11 of 2023. At the operational level, revenue performance depends not only on the number of registered vehicles but also on the accuracy of ownership records, administrative convenience, service quality, and taxpayers' willingness to meet their obligations on time. SAMSAT Sleman administers Motor Vehicle Tax (PKB) payments as well as vehicle-ownership updates, while Governor Regulation of the Special Region of Yogyakarta No. 83 of 2024 provides the regional basis for PKB and Motor Vehicle Title Transfer Fee (BBNKB) administration. Despite continuing administrative improvements, arrears, delayed ownership updates, and reliance on relief programs remain relevant concerns. Taxpayer compliance therefore needs to be assessed separately from short-term increases in aggregate revenue. Compliance reflects the consistency with which individuals meet statutory obligations, including paying on time, avoiding arrears, following procedures, and acting voluntarily; it is shaped by both internal factors, such as knowledge and motivation, and external factors, including administrative quality, perceived fairness, economic capacity, and institutional trust (Romadhon & Diamastuti, 2020).

PKB amnesty programs reduce or eliminate administrative penalties for taxpayers with arrears and may encourage the settlement of outstanding liabilities in the short term. However,



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when taxpayers perceive such programs as recurring, they may anticipate future relief and weaken their incentive to pay on time. This explanation is consistent with the economic theory of tax compliance, which views tax decisions as a consideration of expected benefits, costs, and risks (Allingham & Sandmo, 1972). Empirical evidence from Indonesia is not fully consistent: some studies report positive compliance responses to tax-relief programs, whereas others indicate that the relationship depends on policy design, implementation period, and taxpayer characteristics (Dongoran et al., 2022; Sari et al., 2022; Wiranjani & Sujana, 2023). Accordingly, the relationship between perceived PKB amnesty and regular taxpayer compliance requires direct empirical assessment rather than being inferred from temporary increases in collections during an amnesty period.

A second factor is the ease of BBNKB services. In this study, this construct captures taxpayers' assessments of procedural simplicity, clarity of requirements, comprehensibility of fees, processing speed, and awareness of the need to update the registered owner's identity. Easier title-transfer administration can reduce compliance costs while improving the accuracy of the vehicle database and the delivery of tax information. Taxpayer compliance is also related to citizens' experience when interacting with service providers. Accurate staff performance, responsive processing, assurance of competence, helpful attitudes, and adequate facilities can reduce time costs and uncertainty. These dimensions overlap with the SERVQUAL framework of tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). Reliable and responsive services are therefore expected to support timely fulfillment of tax obligations by lowering procedural barriers and the need for repeated visits.

This study contributes by examining perceptions of fiscal relief, the ease of vehicle-ownership administration, and service quality within a single taxpayer-compliance model at SAMSAT Sleman. It does not equate increased revenue during an amnesty period with sustained regular compliance. The objective is to assess the partial and simultaneous associations of perceived PKB amnesty, ease of BBNKB services, and service quality with motor vehicle taxpayer compliance. Based on the theoretical arguments and prior evidence, four hypotheses are proposed:

H1: Perceived PKB tax amnesty is associated with taxpayer compliance.

H2: Ease of BBNKB services is positively associated with taxpayer compliance.

H3: Service quality is positively associated with taxpayer compliance.

H4: Perceived PKB tax amnesty, ease of BBNKB services, and service quality are simultaneously associated with taxpayer compliance.

METHODS

This study employed a quantitative associative approach with a cross-sectional design. Data were collected from June to September 2025 from motor vehicle taxpayers who resided in or obtained vehicle-related services in Sleman. The unit of analysis was users of motor vehicle tax services in the Sleman area. A total of 100 complete responses were purposively selected using the following criteria: owning or controlling a motor vehicle, having previously paid PKB and/or processed a vehicle title transfer, receiving services in the Sleman area, and agreeing to complete the questionnaire. Because respondents were not randomly selected, the study does not use the sample to estimate a population margin of error, and generalization is limited to the characteristics of the observed sample. Primary data were collected through questionnaires distributed directly and online via Google Forms and WhatsApp. Each construct was measured with five items on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The analysis included



descriptive statistics, item-total correlations as reported in the analytical output, Cronbach's alpha reliability, residual normality, multicollinearity, heteroskedasticity using the Glejser test, multiple linear regression, t tests, the F test, and the coefficient of determination at the 5% significance level. The estimated model was $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$. Because the Glejser test indicated heteroskedasticity for X_2 , the OLS coefficients are retained as point estimates, but standard errors, confidence intervals, p values, and hypothesis decisions should be recalculated using HC3 robust standard errors or bootstrapping from the raw data before submission.

Table 1. Operational Definitions of Variables

Variable	Operational definition	Indicators
Perceived PKB tax amnesty (X1)	Perception of the benefits of PKB penalty relief	Benefits; settlement of arrears; timeliness; awareness; burden reduction
Ease of BBNKB services (X2)	Perception of the ease of the vehicle title-transfer process	Administration; clarity; fees; speed; title-transfer awareness
Service quality (X3)	Assessment of SAMSAT service quality	Tangibles; reliability; responsiveness; assurance; empathy
Taxpayer compliance (Y)	Behavior in fulfilling PKB obligations	Timeliness; absence of arrears; procedures; regulatory compliance; awareness

RESULT AND DISCUSSION

Respondent Characteristics

The sample consisted of 56% women and 44% men. Respondents aged 17–25 years represented 55% of the sample, while private-sector employees formed the largest occupational group (42%). The predominance of younger respondents limits the representation of older service users and should be considered when interpreting the findings.

Table 2. Respondent Characteristics

Characteristic	Category	n	%
Sex	Male	44	44
	Female	56	56
Age	17–25 years	55	55
	26–35 years	27	27
	36–45 years	10	10
	46–60 years	8	8
Education	Primary/Junior secondary school	5	5
	Senior high/Vocational school	43	43
	Diploma	9	9
	Bachelor's/Master's degree	43	43
Occupation	Civil servant	25	25
	Private-sector employee	42	42
	Entrepreneur	23	23
	Military/Police	10	10

Validity and Reliability

The item-total correlation coefficient for every questionnaire item exceeded the 0.300 threshold, while Cronbach's alpha for all constructs was above 0.900. Under the analytical criteria used in this study, the items therefore demonstrated acceptable internal validity and very high internal consistency. Construct validity was not assessed using factor analysis, however, so the empirical distinctiveness of the indicators should be examined in subsequent research.

Table 3. Validity and Reliability Test Results

Variable	Item-total r range	Cronbach's alpha	Interpretation
Perceived PKB tax amnesty	0.702–0.855	0.920	Valid and reliable
Ease of BBNKB services	0.869–0.906	0.908	Valid and reliable
Service quality	0.899–0.924	0.923	Valid and reliable
Taxpayer compliance	0.873–0.899	0.905	Valid and reliable

Regression Assumptions

The Kolmogorov–Smirnov test yielded $p = 0.126$, providing insufficient evidence to reject residual normality. Tolerance values for all predictors exceeded 0.10 and VIF values were below 10, indicating no serious multicollinearity. However, the Glejser test for X_2 produced $p = 0.022$. This result indicates non-constant residual variance and implies that the conventional OLS standard errors and p values require correction.

Table 4. Summary of Regression Assumption Tests

Test	Result	Interpretation
Residual normality	K-S $p = 0.126$	No evidence to reject normality
Multicollinearity X_1	Tolerance 0.969; VIF 1.032	Not indicated
Multicollinearity X_2	Tolerance 0.443; VIF 2.257	Not indicated
Multicollinearity X_3	Tolerance 0.452; VIF 2.213	Not indicated
Glejser X_1	$p = 0.896$	Not indicated
Glejser X_2	$p = 0.022$	Heteroskedasticity indicated

Hypothesis Testing

The preliminary OLS point estimates produced the equation $\hat{Y} = 11.763 - 0.121X_1 + 0.340X_2 + 0.252X_3$. The coefficient for X_1 is negative, whereas those for X_2 and X_3 are positive. The inferential statistics in Table 5 are not final because robust standard errors are not yet available.

Table 5. Multiple Linear Regression Results

Predictor	B	SE	Beta	t	p	Decision
Constant	11.763	1.714	—	6.861	<0.001	Preliminary OLS
Perceived PKB tax amnesty	-0.121	0.059	-0.156	-2.052	0.043	Provisional – verify HC3/bootstrap
Ease of BBNKB services	0.340	0.089	0.430	3.815	<0.001	Provisional – verify HC3/bootstrap
Service quality	0.252	0.095	0.296	2.655	0.009	Provisional – verify HC3/bootstrap

Source: Research data processed, 2026. Note: standard errors and p values are based on preliminary OLS estimates.

The multiple correlation coefficient was $R = 0.679$, indicating a relatively strong combined association within the sample. The model yielded $R^2 = 0.461$ and adjusted $R^2 = 0.444$. The preliminary OLS F test produced $F(3, 96) = 27.346$ with $p < 0.001$. Thus, the three predictors jointly account for 46.1% of the variation in the sample's taxpayer-compliance scores. The remaining variation may be associated with other factors such as tax knowledge, sanctions, income, tax education, digital-payment convenience, and trust in government.

Perceived PKB Tax Amnesty and Taxpayer Compliance

The preliminary OLS estimate for perceived PKB tax amnesty is negative. In the initial model, a one-point increase in the perceived-amnesty score is associated with a 0.121-point decrease in the compliance score after the other predictors are held constant. One possible explanation is that expectations of future relief may encourage some taxpayers to postpone regular payments. This

interpretation is tentative and does not demonstrate that an amnesty program causes lower compliance.

The negative association should be interpreted cautiously. The cross-sectional design cannot establish the temporal sequence between exposure to an amnesty program and payment behavior. Taxpayers who previously accumulated arrears may be more familiar with or more likely to use an amnesty program, meaning that the negative coefficient could partly reflect reverse selection. Differences from earlier studies may also arise from variation in research location, policy period, sample composition, and the operational definition of compliance.

Ease of BBNKB Services and Taxpayer Compliance

Ease of BBNKB services has a positive coefficient and the largest standardized beta (0.430) in the preliminary estimates. The result indicates that simpler procedures, clearer information, understandable fees, and faster processing are associated with higher compliance within the sample. Updating the registered owner's identity may also improve the accuracy of the vehicle database used to deliver PKB information and support tax administration.

This direction is consistent with research that treats title-transfer services as part of administrative convenience in motor vehicle taxation. Nevertheless, the X2 indicators simultaneously cover procedures, fees, speed, service, and awareness. The breadth of this construct may create conceptual overlap with service quality; future research should therefore distinguish these dimensions more clearly and evaluate construct validity using factor analysis.

Service Quality and Taxpayer Compliance

Service quality also shows a positive association with taxpayer compliance. Fast, accurate, courteous, and informative services can reduce waiting time, uncertainty, and the need for repeated visits. From a practical perspective, service improvements may focus on online queue systems, consistent information, expanded payment channels, clear service-time standards, and easily accessible complaint mechanisms.

Simultaneous Associations and Policy Implications

The model indicates that taxpayer compliance cannot be explained by fiscal incentives alone. Amnesty measures should be accompanied by simple title-transfer administration, consistent service quality, taxpayer communication, and regulatory enforcement. Policy evaluation should also distinguish the settlement of arrears during an amnesty from timely regular tax payment after the program ends. This distinction is important because a short-term increase in collections does not necessarily imply sustained improvement in underlying compliance behavior.

CONCLUSION

The preliminary estimates show a negative direction for perceived PKB tax amnesty and positive directions for ease of BBNKB services and service quality. Together, the three variables explain 46.1% of the variation in taxpayer compliance within the sample. However, the statistical significance of the coefficients should not be treated as final until the standard errors are recalculated using HC3 robust estimation or bootstrapping because heteroskedasticity was detected for X2.

From a managerial perspective, tax amnesty should be used selectively and communicated as a corrective policy rather than a routine program. BBNKB services can be strengthened through a unified information channel, integration of ownership data, online services, and clearer processing-time standards. Service performance should be monitored using operational indicators such as waiting time, first-visit resolution, number of complaints, and user satisfaction.



The study is limited by its cross-sectional design, purposive sampling, sample size of 100 respondents, predominance of respondents aged 17–25 years, self-reported compliance measure, possible overlap between the X2 and X3 constructs, and heteroskedasticity for X2. Future research should use longitudinal administrative data, probability sampling, instruments validated through factor analysis, and robust estimation procedures to provide stronger evidence on the stability and generalizability of these associations.

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