THE EFFECT OF TAX SOCIALIZATION, TAX SYSTEM DIGITALIZATION, AND TAX LITERACY ON INDIVIDUAL TAXPAYER COMPLIANCE

Burhanudin Khoiri Fadhlurrohman[1]
Universitas Muhammadiyah Surakarta, Surakarta, Indonesia
b200221567@student.ums.ac.id

Mujiyati[2]
Universitas Muhammadiyah Surakarta, Surakarta, Indonesia
mujiyati@ums.ac.id*

Abstract

An empirical inquiry was undertaken to ascertain whether Tax Socialization, Tax System Digitalization, and Tax Literacy condition Individual Taxpayer Compliance among educators domiciled in Jumantono District, Karanganyar Regency. The investigation adopted a quantitative-associative paradigm, operationalized through a cross-sectional survey. Its sampling frame encompassed 398 kindergarten, elementary, junior-high, and vocational-high-school teachers; from this universe, 207 participants were recruited via purposive sampling under proportional allocation. Questionnaire responses, recorded on a five-point Likert continuum, constituted the evidentiary corpus and were interrogated through Partial Least Squares–Structural Equation Modeling (PLS-SEM) in SmartPLS 4. Analytical procedures comprised measurement-model validation, structural-model scrutiny, bootstrapping, and assessment of predictive performance. Inferentially, Tax Socialization exhibited a positive yet statistically non-significant association with Taxpayer Compliance; Tax System Digitalization likewise failed to manifest a significant direct effect. Conversely, Tax Literacy emerged as the sole construct exerting a statistically significant direct influence, characterized by a positive direction and large effect magnitude. Collectively, the three exogenous predictors accounted for 66.3% of compliance variance. Moreover, the model demonstrated predictive relevance vis-à-vis a naïve benchmark, albeit with comparatively constrained predictive potency when juxtaposed with a linear model. Ergo, the evidence suggests that actionable fiscal knowledge and comprehension constitute a more proximate determinant of compliance enhancement than either socialization mechanisms or digital tax-service provision in isolation.

Keywords: Individual Taxpayer Compliance; Tax Literacy; Tax Socialization; Tax System Digitalization; Teachers

INTRODUCTION

Within the fiscal architecture of Indonesia, taxation constitutes a pivotal instrument for mobilizing public revenue, whose proceeds underwrite national development, infrastructural provision, education, healthcare, public services, and social-protection initiatives (DJP, 2025). Hence, fiscal optimization is not exclusively contingent upon governmental intervention; rather, it is concomitant with the degree to which taxpayers discharge their juridical obligations. Such compliance assumes particular salience under Indonesia's self-assessment regime, wherein computational determination, remittance, and reporting of tax liabilities are delegated to taxpayers themselves. The operability of this arrangement, *ipso facto*, is conditioned by taxpayers' cognizance, comprehension, and practical capacity to execute their fiscal responsibilities correctly and punctually.

Concomitantly, technological modernization has engendered a paradigmatic reconfiguration of Indonesian tax administration. Through the Directorate General of Taxes, an electronic service ecosystem encompassing e-Registration, e-Billing, e-Filing, e-Form, DJP Online, and Coretax DJP has been instituted (DJP, 2025). Since January 2025, Coretax DJP has functioned as an integrated administrative infrastructure accommodating registration, payment, tax-return submission, and ancillary fiscal services. Nevertheless, digitalization does not *ipso facto* guarantee administrative efficacy: its utility remains partly predicated upon taxpayers' digital competence. Consistent with the Technology Acceptance Model (TAM), Davis (1989) conceptualizes technological adoption as being principally associated with perceived usefulness and perceived ease of use.

From a behavioural-compliance perspective, three antecedents warrant consideration: tax socialization, digital transformation of the tax system, and taxpayers' fiscal literacy. Socialization functions as a conduit through which taxpayers acquire cognizance of entitlements, duties, procedures, and regulatory provisions, whether disseminated interpersonally or digitally. Evidence, however, does not yield an unequivocal pattern. Zaikin et al. (2023) documented a positive, significant association between tax socialization and individual taxpayer compliance. Conversely, Limantoro et al. (2022) reported a reversal: when operationalized as a moderating construct, tax socialization attenuated the nexus between motor vehicle tax incentives and taxpayer compliance. Hence, its efficacy is contingent upon the behavioural milieu in which communication occurs.

Technological modernization constitutes a determinant. Tambun and Riandini (2022) associated digitalized tax services with taxpayer compliance, whereas Sholihah and Yushita (2025) established an effect of e-Billing upon compliance among MSME taxpayers. Natalia and Barli (2025), likewise, demonstrated the pertinence of e-Filing for explaining individual taxpayer compliance. Yet, Oktaviani et al. (2025) found no direct compliance effect attributable to Coretax utilization; tax literacy and accessibility of tax services, by contrast, remained influential. Collectively, these observations imply that digital infrastructure, per se, cannot be presumed sufficient: technological availability requires user competence and accessibility to translate into compliant behaviour.

Within the framework of tax compliance, tax literacy may be construed as taxpayers' cognitive competence (*competentia cognitiva*) for apprehending fiscal functions, statutory entitlements, concomitant obligations, filing mechanisms, temporal deadlines, punitive provisions, and other pertinent information. Such competence potentially augments

perceived behavioral control, thereby facilitating tax fulfillment that is both precise and autonomous (Ajzen, 1991). Nevertheless, the empirical corpus has not yielded a uniform conclusion. Ma'rufah and Sari (2023), for instance, established that tax literacy failed to moderate the relationship between educational attainment and taxpayer compliance. Contrariwise, Al Khoir and Muid (2025) documented favorable contributions of tax knowledge, e-Filing, e-Billing, and digital literacy toward individual taxpayer compliance. Corroborating a different evidentiary trajectory, Aini et al. (2025) identified tax literacy, tax digitalization, and tax socialization as consequential variables, while Samosir (2026) observed analogous relationships within the MSME sector. This heterogeneity (*discrepantia empirica*) consequently leaves unresolved the explanatory significance of tax literacy alongside cognate fiscal determinants.

Beyond this empirical lacuna, a contextual deficiency is likewise discernible. Extant investigations predominantly scrutinize MSME taxpayers, motor-vehicle taxpayers, lecturers, teachers situated within particular educational strata, or individual taxpayers without occupational specificity. Conversely, integrated inquiry combining tax socialization, digitalization of the tax system, and tax literacy as antecedents of individual taxpayer compliance among teachers spanning multiple educational tiers within a single subdistrict remains scarce. On that epistemological basis, the present investigation concentrates on kindergarten, elementary, junior-high, and vocational-high-school teachers in Jumantono District, Karanganyar Regency.

KPP Pratama Karanganyar (2026) records an upward movement in individual taxpayer registration, from 411,027 persons in 2021 to 560,043 in 2026, signifying approximately 36.25% augmentation. Tax-return reporting likewise surpassed predetermined benchmarks across several periods, attaining 101.13% in 2022, 101.91% in 2023, 108.39% in 2024, and 101.37% in 2025. By August 2026, realization had reached 100.18% of the prescribed target. Despite such ostensibly robust filing activity, demographic expansion within the registered taxpayer base concomitantly intensifies the exigency for efficacious fiscal education, accessible digital services, and adequate taxpayer literacy.

Preliminary empirical evidence from 25 teachers in Jumantono District reinforces the salience of these determinants. Within this cohort, 64% remained reliant on assistance for tax reporting, whereas only 36% exhibited autonomous reporting competence. Educational exposure was similarly circumscribed: 68% had received no tax education during the preceding year. Although 84% had utilized digital tax services, 60% continued encountering difficulties, and merely 40% considered system-provided information readily comprehensible. Concerning tax literacy, 52% understood the annual tax-return deadline, while just 44% comprehended sanctions for delayed reporting. Interviews with six teachers further disclosed heterogeneous practical experiences, including Coretax difficulties, server disruptions, limited technological proficiency, dependence on colleagues, and disparities in access to tax socialization and assistance.

These empirical findings imply that digital taxation requires reinforcement through substantive tax knowledge, efficacious socialization, and contextually appropriate assistance. The study's novum resides in concurrently investigating three determinants corresponding to distinct dimensions of taxpayer compliance: tax socialization represents external educational intervention; tax system digitalization embodies technological facilitation; and tax literacy denotes taxpayers' internal cognitive capability. Taken together,

these observations expose a multidimensional compliance problem in which institutional outreach, technological infrastructure, and individual competence remain mutually interdependent within contemporary taxation. Accordingly, this research empirically evaluates the effects of tax socialization, tax system digitalization, and tax literacy upon individual taxpayer compliance among teachers working in Jumantono District, Karanganyar Regency.

REVIEW OF LITERATURE

Technology Acceptance Model (TAM)

Davis (1989) formulated the Technology Acceptance Model (TAM) to elucidate technological adoption through two cardinal constructs, namely perceived usefulness and perceived ease of use. Herein, TAM functions as an analytical framework for tax-system digitalization, predicated upon the proposition that taxpayers tend to employ digital fiscal services when their utility, efficiency, and operational simplicity are favorably appraised. Electronic facilities encompassing payment, reporting, and taxation-information access may attenuate administrative impediments, thereby rendering compliance more practicable. Consequently, among teachers in Jumantono District, Karanganyar Regency, stronger perceptions of digital tax-system utility and usability are theoretically associated with a heightened propensity to discharge their tax obligations compliantly overall.

Theory of Planned Behavior (TPB)

Ajzen's (1991) Theory of Planned Behavior (TPB) conceptualizes behavioral enactment as an outcome of three antecedent dispositions: evaluative attitude, subjective norm, and perceived behavioral control. Within the fiscal domain, tax compliance tends to materialize *ipso facto* when favorable tax dispositions coexist with normative reinforcement from social or institutional milieus and adequate self-efficacy for discharging fiscal duties. Applied herein, TPB provides a conceptual nexus linking tax socialization and tax literacy to compliance. Socialization can consolidate tax awareness and normative impetus, whereas literacy augments perceived competence in accurately computing, remitting, and declaring liabilities, thus fostering individual tax compliance among teachers in Jumantono District.

Stewardship Theory

Stewardship Theory conceptualizes how entrusted actors administer resources on behalf of parties conferring that mandate (Donaldson & Davis, 1991). In fiscal administration, government occupies stewardship position, converting tax receipts into instruments for collective welfare, whereas taxpayers discharge responsibilities through remittances. Confidence that public revenue is administered transparently, accountably, and efficaciously can engender voluntary observance; concurrently, tax socialization may consolidate fiduciary nexus through dissemination of knowledge concerning fiscal benefits, taxpayer duties, and administrative mechanisms. Herein, Stewardship Theory functions as an ancillary foundation; TAM principally elucidates digitalization of tax systems, whereas TPB provides the explanatory basis for tax socialization, tax literacy, and taxpayer compliance.

Individual Taxpayer Compliance

Taxpayer compliance denotes the execution of fiscal duties pursuant to tax provisions, encompassing registration, liability computation, remittance, and submission of

tax returns that are accurate and punctual. Such compliance possesses formal and material dimensions: the former concerns punctuality in payment and filing, while the latter emphasizes computational accuracy and veracious disclosure. For this investigation, the construct concerns teachers in Jumantono District and is operationalized through punctual annual-return submission, data accuracy and completeness, adherence to taxation provisions, timely discharge of fiscal obligations, alongside comprehension of tax procedures. Zaikin et al. (2023) indicates that taxpayer knowledge, tax socialization, and taxpayer awareness exhibit an association with individual taxpayer compliance.

Tax Socialization

Within a framework, tax socialization constitutes an information-transfer mechanism through which taxpayers acquire cognizance of entitlements, duties, procedures, and the rationale underlying taxation. Dissemination may assume an interpersonal modality—counseling, seminars, tax courses, assistance, or consultation or a mediated modality employing official portals, social networking platforms, instructional audiovisuals, brochures, and digital channels. For the inquiry, this intervention is positioned as an antecedent of teachers' tax compliance because augmented comprehension, awareness, and autonomous capacity can facilitate fiscal obligations. Zaikin et al. (2023) documented a positive, statistically significant association between tax socialization and individual taxpayer compliance; Aini et al. (2025) likewise identified an effect upon individual taxpayer compliance. Operationally, the construct encompasses exposure to tax information, intelligibility of disseminated materials, utility for annual tax-return submission, congruence of communication media, and contribution toward heightened tax awareness.

Tax System Digitalization

Digital transformation within tax administration denotes migration from manual routines toward technologically mediated infrastructures, with efficiency, efficacy, transparency, accessibility, and service quality constituting desiderata. Indonesia's architecture comprises e-Registration, e-Billing, e-Filing, e-Form, DJP Online, and Coretax DJP; since January 2025, the latter has integrated registration, reporting, payment, and ancillary taxation services (DJP, 2025). In this research, the phenomenon is apprehended through users' appraisal of usability, utility, accessibility, system dependability, and information security, dimensions consonant with the Technology Acceptance Model (TAM). Tambun and Riandini (2022) indicate that digitalized tax services relate to taxpayer compliance, especially where technological arrangements diminish procedural burdens while generating convenience and efficiency.

Tax Literacy

Tax literacy signifies a taxpayer's cognitive-practical repertoire for interpreting taxation: concepts, regulations, rights, obligations, procedures, sanctions, deadlines, and informational resources, alongside competent utilization of electronic tax facilities. Accordingly, this study treats literacy as multidimensional rather than merely declarative, since fiscal competence entails capacity to execute tax responsibilities without continual external intervention. Under the Theory of Planned Behavior (TPB), such competence can reinforce perceived behavioral control; greater mastery plausibly enhances confidence when taxpayers calculate liabilities, remit payments, and submit reports. Karlinah et al. (2024) demonstrated that tax comprehension and awareness constitute consequential determinants in forming compliant taxpayer behavior. Measurement captures mastery of taxation's

functions, taxpayer entitlements and duties, annual-return procedures, reporting deadlines and sanctions, together with independent capacity to retrieve tax information and operate digital tax services.

Research Hypotheses

Tax Socialization and Individual Taxpayer Compliance

Within the framework of tax administration, socialization constitutes an epistemic and educative mechanism through which taxpayers acquire cognizance of their juridical entitlements, fiscal responsibilities, procedural requirements, and prevailing regulatory provisions. Viewed through the Theory of Planned Behavior, such informational intervention can engender favorable attitudinal dispositions and reinforce subjective norms conducive to tax-compliant conduct (Ajzen, 1991). When disseminated comprehensibly and effectively, tax-related knowledge may attenuate informational asymmetry while simultaneously fostering taxpayers' willingness to discharge their obligations. Empirical evidence supplied by Zaikin et al. (2023) substantiates a positive and statistically significant relationship between tax socialization and compliance. Nevertheless, Limantoro et al. (2022) indicate that its explanatory contribution is not necessarily invariant across distinct empirical settings. Consistent with the former evidence, Aini et al. (2025) demonstrate that socialization exerts an influence upon individual taxpayer compliance. On this theoretical and empirical basis, the first proposition is formulated as follows:

H1: Tax socialization has a positive effect on the compliance of individual taxpayers working as teachers in Jumantono District, Karanganyar Regency.

Tax System Digitalization and Individual Taxpayer Compliance

A paradigmatic transformation in contemporary fiscal governance is represented by tax-system digitalization, whereby conventional administrative procedures are reconfigured through information technology to augment expediency, operational efficiency, service accessibility, and institutional transparency. Manifestations thereof encompass e-Billing, e-Filing, DJP Online, and Coretax (DJP, 2025). Although technological intermediation can simplify both remittance and tax reporting, its practical efficacy remains contingent upon usability and taxpayers' digital-operational competence. Tambun and Riandini (2022) establish that digitalized tax services influence compliance, whereas Sholihah and Yushita (2025) and Natalia and Barli (2025) associate e-Billing and e-Filing with compliant behavior. Contrariwise, Oktaviani et al. (2025) report no direct effect of Coretax utilization, suggesting that technological adoption alone is insufficient when comprehension and accessibility remain constrained. Accordingly, the second hypothesis is advanced:

H2: Tax system digitalization has a positive effect on the compliance of individual taxpayers working as teachers in Jumantono District, Karanganyar Regency.

Tax Literacy as a Determinant of Taxpayer Compliance

Within fiscal administration, tax literacy denotes the taxpayer's cognitive capacity to decipher regulatory provisions, recognize entitlements and duties, navigate procedural requirements, anticipate sanctions, and operate electronically mediated tax facilities. Viewed through the Theory of Planned Behavior, such literacy can augment perceived behavioral control: epistemic competence concerning taxation enhances taxpayers' self-assurance and capability when executing fiscal responsibilities accurately (Ajzen, 1991). Empirical evidence reinforces this proposition. Oktaviani et al. (2025) reported an effect of tax literacy

upon taxpayer compliance, whereas Sholihah and Yushita (2025) demonstrated that tax knowledge contributed to MSME taxpayer compliance. Congruently, Zaikin et al. (2023) identified an association between taxpayer knowledge and compliance. On that evidentiary basis, the proposed hypothesis is:

H3: Tax literacy positively influences taxpayer compliance among teachers in Jumantono District, Karanganyar Regency.

Tax Socialization, Digitalized Tax Administration, and Tax Literacy as Joint Predictors of Compliance

Compliance behavior can emerge from an interdependent constellation of exogenous and endogenous determinants. Tax socialization disseminates fiscal knowledge and material; digitalization of the tax system reconfigures processes through technological mediation; meanwhile, tax literacy represents the taxpayer's capacity to comprehend and operationalize fiscal information. Their convergence should produce adequate knowledge, accessible tax services, and stronger capability for discharging tax responsibilities. Conceptually, the Theory of Planned Behavior and Technology Acceptance Model provide complementary explanatory lenses: these determinants can influence attitudes and norms alongside perceived ease of use and perceived behavioral control (Ajzen, 1991; Davis, 1989). Empirical findings were presented by Aini et al. (2025) and Samosir (2026), who established that tax literacy, socialization, and digitalization collectively contributed to taxpayer compliance. Accordingly, the hypothesis is formulated:

H4: Tax socialization, tax system digitalization, and tax literacy simultaneously exert a significant influence on taxpayer compliance among teachers in Jumantono District, Karanganyar Regency.

RESEARCH METHOD

This investigation adopted a quantitative-associative paradigm and cross-sectional survey architecture to ascertain whether Tax Socialization, Tax System Digitalization, and Tax Literacy exerted effects upon Individual Taxpayer Compliance among teachers serving in Jumantono District, Karanganyar Regency. Its population comprised 398 educators from kindergarten, elementary, junior high, and vocational high schools; from this frame, 207 respondents were recruited through purposive sampling with proportional allocation, consonant with PLS-SEM sample considerations (Hair et al., 2022). Analytically, the exogenous constructs encompassed Tax Socialization (SP/X1), Tax System Digitalization (DSP/X2), and Tax Literacy (LP/X3), whereas Taxpayer Compliance (KWP/Y) constituted the endogenous criterion, operationalized through 20 indicators scored on a five-point Likert continuum. Primary evidence was elicited by questionnaires administered directly and electronically through Google Forms; participation was restricted to teachers possessing experience of, or direct engagement in, individual tax obligations. Processing employed Partial Least Squares–Structural Equation Modeling (PLS-SEM) using SmartPLS 4 (Ringle et al., 2024), encompassing descriptive diagnostics, measurement-model appraisal, structural-model evaluation, and bootstrap-based hypothesis verification. For the collective proposition (H4), the coefficient of determination (R^2) served as a index of explanatory capacity, complemented by predictive performance assessment.

RESULTS AND DISCUSSION

Overview of the Research

Within the tax-compliance nexus, this investigation operationalizes Tax Socialization (X1), Tax System Digitalization (X2), and Tax Literacy (X3) as explanatory constructs for Individual Taxpayer Compliance (Y) among educators serving Jumantono District, Karanganyar Regency. From an aggregate frame of 398 teachers—84 kindergarten, 177 elementary, 71 junior-high, and 66 vocational-high-school educators—a proportionally stratified final sample of 207 respondents was constituted. Educators were purposively positioned as the empirical locus because heterogeneous scholastic and occupational milieus can engender dissimilar tax-procedural comprehension, digital-service proficiency, and informational accessibility. Ergo, a priori assumptions of generalized non-compliance are eschewed; the analytical concern instead resides in elucidating determinants underlying interindividual variation in tax adherence and autonomous compliance; rather than assigning uniform behavioral characteristics to all participants within the studied population and its institutional contexts collectively.

Data Collection, Screening, and Determination Process

Table 1 subsequently delineates the final-sample composition by educational stratum, thereby elucidating the proportional allocation attributable to each constituent cohort.

Table 1.
Composition of the Final Sample by Educational Level

Educational Level	Population	Sample	Sample Proportion
Kindergarten	84	44	21.3%
Elementary School	177	92	44.4%
Junior High School	71	37	17.9%
Vocational High School	66	34	16.4%
Total	398	207	100.0%

Source: Jumantono District Education Coordinator database for kindergarten and elementary school levels (2026), and administrative records of each school for junior high and vocational high school levels (2026).

This composition maintains the representation of each educational level in the final sample.

Respondent Characteristics

The demographic and tax-related characteristics of the 207 respondents are presented in Table 2

Table 2.
Respondent Characteristics

Characteristic	Category	N	Percentage
Gender	Female	156	75.4%

Characteristic	Category	N	Percentage
	Male	51	24.6%
Age	20–30 years	22	10.6%
	31–40 years	61	29.5%
	41–50 years	65	31.4%
	Over 50 years	59	28.5%
Employment Status	Civil Servant (ASN/PNS)	93	44.9%
	Government Employee with Work Agreement (PPPK)	77	37.2%
	Permanent Foundation Teacher	22	10.6%
	Honorary Teacher	9	4.3%
	Part-Time PPPK	5	2.4%
	Certified Non-Civil Servant Teacher	1	0.5%
Tax Identification Number (NPWP) Ownership	Owns an NPWP	206	99.5%
	Does not yet own an NPWP	1	0.5%
Annual Tax Return Filing Experience	Filed independently	139	67.1%
	Filed with assistance from another party	54	26.1%
	Never filed	14	6.8%

From an empirical standpoint, annual-return reporting among teachers manifests a predominantly autonomous profile: 139 participants (67.1%) completed filing proprio motu, whereas 54 (26.1%) accomplished it through assistance and 14 (6.8%) reported no filing history. Consequently, 68 individuals (32.9%) remain without complete reporting autonomy. Such evidence, mutatis mutandis, should not be construed as pervasive noncompliance; instead, it denotes comparatively robust adherence, tempered by residual dependency on guidance for tax administration, especially procedural intricacies and digitally mediated fiscal services and completing statutory reporting requirements accurately.

Descriptive Statistics of Research Variables

The descriptive statistics of each research construct are presented in Table 3 to provide an overview of the respondents' perceptions of the variables examined.

Table 3.
Descriptive Statistics of Research Constructs

Construct	Mean	Standard Deviation	Description
Tax Socialization (X1)	3.856	0.738	Relatively High

Construct	Mean	Standard Deviation	Description
Tax System Digitalization (X2)	3.835	0.665	Relatively High
Tax Literacy (X3)	3.863	0.659	Relatively High
Taxpayer Compliance (Y)	4.073	0.671	Relatively High

Among the examined constructs, Taxpayer Compliance attained the greatest arithmetic mean, namely 4.073, which *prima facie* signifies comparatively elevated respondent compliance. Tax Literacy subsequently yielded 3.863, whereas Tax Socialization and Tax System Digitalization registered 3.856 and 3.835, respectively. Given the marginal dispersion separating these construct-level averages, inferential interpretation of intervariable associations is consequently anchored in the structural model, rather than predicated exclusively upon descriptive magnitude. For greater analytical granularity, Table 4 subsequently delineates descriptive statistics corresponding to every measurement indicator and individual questionnaire item.

Table 4.
Descriptive Statistics of Research Indicators

Construct	Indicator	Mean	Standard Deviation
Tax Socialization (X1)	X1.1	3.952	0.823
	X1.2	3.831	0.851
	X1.3	3.845	0.862
	X1.4	3.754	0.855
	X1.5	3.899	0.827
Tax System Digitalization (X2)	X2.1	3.802	0.753
	X2.2	3.928	0.744
	X2.3	3.768	0.821
	X2.4	3.787	0.759
	X2.5	3.889	0.783
Tax Literacy (X3)	X3.1	3.966	0.784
	X3.2	4.034	0.720
	X3.3	3.802	0.753
	X3.4	3.850	0.771
	X3.5	3.662	0.825
Taxpayer Compliance (Y)	Y1	4.116	0.741
	Y2	4.087	0.712
	Y3	4.106	0.723

Construct	Indicator	Mean	Standard Deviation
	Y4	4.024	0.747
	Y5	4.034	0.713

Empirically, X3.5 constitutes the least prominent dimension within Tax Literacy, attaining a mean score of 3.662; this metric denotes teachers' capacity for autonomous tax-information retrieval and digital-service utilization. Such an outcome accords with respondent characteristics, wherein a subset remains dependent upon external assistance during tax-return submission. Conversely, Taxpayer Compliance manifested uniformly elevated means exceeding 4.00. Hence, comparatively robust compliance should not *ipso facto* be construed as evidence of comprehensive technical autonomy in executing fiscal obligations.

Measurement Model Evaluation (*Outer Model*)

The measurement model was evaluated using outer loadings, internal consistency reliability, and *Average Variance Extracted* (AVE), as presented in Table 5.

Table 5.
Measurement Model Evaluation

Construct	Indicator	Outer Loading	CA	CR	AVE
Tax Socialization (X1)	X1.1	0.856	0.923	0.942	0.764
	X1.2	0.862			
	X1.3	0.874			
	X1.4	0.883			
	X1.5	0.896			
Tax System Digitalization (X2)	X2.1	0.898	0.913	0.935	0.743
	X2.2	0.872			
	X2.3	0.900			
	X2.4	0.850			
	X2.5	0.784			
Tax Literacy (X3)	X3.1	0.873	0.909	0.932	0.733
	X3.2	0.859			
	X3.3	0.874			
	X3.4	0.901			
	X3.5	0.768			
Taxpayer Compliance (Y)	Y1	0.933	0.957	0.967	0.853

Construct	Indicator	Outer Loading	CA	CR	AVE
	Y2	0.953			
	Y3	0.941			
	Y4	0.885			
	Y5	0.904			

Empirically, the measurement model manifested outer-loading coefficients spanning 0.768–0.953; each surpassed the 0.70 criterion, thereby substantiating satisfactory indicator reliability. From a psychometric perspective, Cronbach's Alpha alongside Composite Reliability likewise attained coefficients exceeding 0.70 across every latent construct, whereas Average Variance Extracted (AVE) uniformly transcended 0.50, providing corroborative evidence of robust internal consistency and convergent validity. Notwithstanding the exceptionally elevated reliability exhibited by Taxpayer Compliance, such magnitude did not constitute a methodological lacuna within the model; accordingly, every indicator remained incorporated, *inter alia*, to safeguard the constructs' substantive content validity.

Discriminant Validity

Discriminant validity was primarily assessed using the *Heterotrait-Monotrait Ratio* (HTMT) (Henseler et al., 2015), as presented in Table 6.

Table 6.
Heterotrait-Monotrait Ratio (HTMT)

Construct Pair	HTMT	Upper CI 97.5% Percentile	Upper CI 97.5% Bias-Corrected	Interpretation
X1–X2	0.896	0.948	0.945	Point estimate < 0.90; close to threshold
X1–X3	0.811	0.894	0.889	Adequate
X2–X3	0.849	0.923	0.921	Point estimate < 0.90; CI exceeds 0.90
X1–Y	0.731	0.873	0.865	Adequate
X2–Y	0.703	0.853	0.845	Adequate
X3–Y	0.849	0.932	0.927	Point estimate < 0.90; CI exceeds 0.90

From a discriminant-validity perspective, the HTMT assessment yielded point estimates that remained subthreshold at 0.90, although X1–X2 exhibited the closest empirical affinity, attaining 0.896. Notwithstanding this criterion-level adequacy, the bootstrap confidence intervals associated with X1–X2, X2–X3, and X3–Y traversed the 0.90 boundary. Accordingly, the point-estimate criterion suggests acceptable construct distinctiveness; nevertheless, such empirical convergence warrants circumspect interpretation, *mutatis mutandis*, because it does not ipso facto substantiate unequivocal separation among the latent dimensions. To reinforce this inferential appraisal, an ancillary

assessment employing the Fornell-Larcker Criterion was subsequently undertaken, with the corresponding empirical results presented in Table 7.

Table 7.
Fornell-Larcker Criterion

Construct	X1	X2	X3	Y
X1	0.874			
X2	0.823	0.862		
X3	0.748	0.766	0.856	
Y	0.691	0.658	0.802	0.923

Discriminant validity was corroboratively substantiated through the Fornell–Larcker criterion: the diagonal AVE square-root coefficients for every latent construct exceeded the respective inter-construct correlation magnitudes. Complementarily, inspection of the cross-loading matrix demonstrated indicator specificity, insofar as each manifest variable exhibited its maximal loading upon the theoretically designated construct rather than its counterparts. Collectively, these empirical diagnostics furnish ancillary evidentiary support for construct distinctiveness; nevertheless, *in primis*, the heterotrait–monotrait ratio (HTMT) continues to constitute the principal evaluative benchmark for discriminant validity.

Structural Model Evaluation (*Inner Model*)

Collinearity and Effect Size

Collinearity and the relative contribution of each predictor to Taxpayer Compliance were evaluated using inner VIF and f^2, as presented in Table 8.

Table 8.
Inner VIF and Effect Size (f^2)

Predictor	Inner VIF	f^2	Interpretation
Tax Socialization (X1)	3.457	0.044	Small
Tax System Digitalization (X2)	3.688	0.001	Negligible
Tax Literacy (X3)	2.703	0.474	Large

Empirical diagnostics established that every inner-VIF coefficient remained sub-threshold (<5), *mutatis mutandis* excluding any critical multicollinearity pathology. Nevertheless, constructs X1 and X2 occupied the 3–5 interval, warranting circumspect inferential treatment, particularly because their HTMT association was comparatively elevated. Regarding substantive effect magnitude, X3 (Tax Literacy) manifested a pronounced idiosyncratic contribution toward Taxpayer Compliance; conversely, X1 (Tax Socialization) exhibited limited explanatory salience, whereas X2 (Tax System Digitalization) contributed merely negligible incremental variance *ceteris paribus*.

Coefficient of Determination

The explanatory power of the structural model was assessed using R^2 and adjusted R^2, as shown in Table 9.

Table 9.

Coefficient of Determination

Endogenous Variable	R^2	Adjusted R^2	Explained Variance
Taxpayer Compliance (Y)	0.663	0.658	66.3%

Empirically, the coefficient of determination (R^2 = 0.663) demonstrates that approximately 66.3% of the observed variability in Taxpayer Compliance can be accounted for *in toto* by the conjoint contribution of Tax Socialization, Tax System Digitalization, and Tax Literacy. Upon adjustment for model dimensionality, the adjusted coefficient (Adjusted R^2 = 0.658) remains proximate to the unadjusted estimate, signifying that the model retains considerable explanatory robustness despite the incorporation of multiple predictor variables. *A contrario*, the residual proportion, equivalent to 33.7%, denotes the segment of Taxpayer Compliance variance that remains unaccounted for by the explanatory constructs incorporated within the present analytical specification.

Predictive Performance

PLSpredict served as the evaluative apparatus for assessing the model's predictive relevance, wherein PLS-SEM prediction errors were juxtaposed against those generated by the linear benchmark model, following Shmueli et al. (2019), with comparative results reported in Table 10.

Table 10.
PLSpredict Results for Taxpayer Compliance Indicators

Indicator	Q^2predict	PLS RMSE	LM RMSE	PLS MAE	LM MAE
Y1	0.541	0.503	0.489	0.358	0.334
Y2	0.530	0.489	0.446	0.339	0.301
Y3	0.532	0.496	0.476	0.359	0.344
Y4	0.513	0.522	0.491	0.349	0.311
Y5	0.512	0.499	0.491	0.334	0.327

Positive Q^2predict magnitudes, uniformly exceeding zero, substantiate the model's out-of-sample pertinence vis-à-vis the indicator-mean criterion. Contrariwise, PLS-SEM yielded systematically greater RMSE and MAE magnitudes across every indicator than the linear specification. In accordance with Shmueli et al. (2019), such an empirical configuration *ipso facto* denotes extant predictive relevance against the naïve comparator, yet simultaneously reflects comparatively attenuated predictive potency when juxtaposed with linear-model performance. As an additional inferential appraisal, CVPAT was subsequently implemented following Liengaard et al. (2021), operationally benchmarking PLS-SEM against Indicator Average and Linear Model comparators, whose results are reported in Table 11.

Table 11.
CVPAT Results

Benchmark	PLS Loss	Benchmark Loss	Loss Variance	T	p-value	Conclusion
Indicator Average (IA)	0.252	0.531	-0.279	3.389	0.001	PLS performs significantly better
Linear Model (LM)	0.252	0.230	0.023	0.825	0.410	PLS does not outperform LM

From a predictive-diagnostics perspective, the CVPAT assessment corroborates the inferential pattern yielded by PLSpredict. Relative to the Indicator Average benchmark, PLS-SEM manifests a statistically significant attenuation in prediction loss, *ipso facto* evidencing incremental predictive information that transcends naïve mean-based estimation. Conversely, its comparison with the Linear Model fails to attain statistical significance, notwithstanding the marginally greater loss registered by PLS-SEM. Accordingly, the empirical architecture retains substantive predictive relevance; *nonetheless*, claims of predictive predominance vis-à-vis the linear specification remain empirically unsubstantiated.

Hypothesis Testing

Structural-path inference employed bootstrapping as the inferential procedure, thereby elucidating relationship significance alongside directional tendencies across investigated constructs. Its resultant estimates receive visual depiction in Figure 1, whereas their substantive statistical synopsis appears subsequently within Table 12.

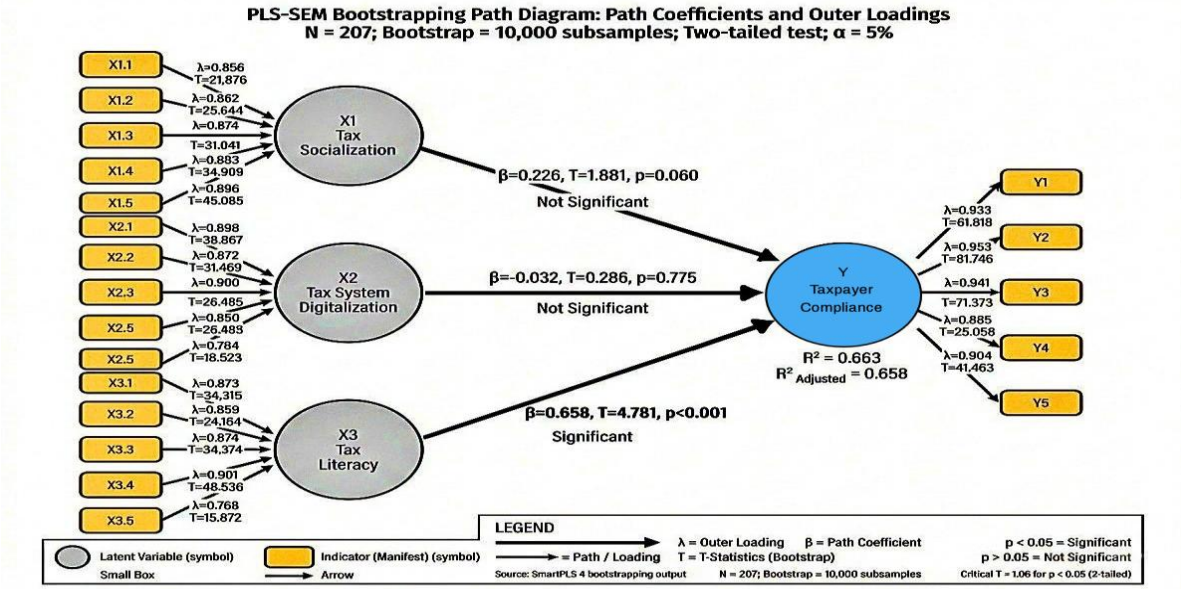


Figure 1.
Bootstrapping Results of the Structural Model

An inferential depiction in Figure 1 delineates the quantified path coefficients alongside their respective levels of statistical significance, thereby elucidating the inter-

variable nexus involving Tax Socialization, Tax System Digitalization, Tax Literacy, and Taxpayer Compliance. Evidently, the structural associations attributable to the respective exogenous constructs exhibit heterogeneous coefficient magnitudes and inferential significance. Subsequently, an assessment of the direct causal effects between the investigated constructs was conducted *ex post* through the bootstrapping procedure, with the corresponding empirical outputs tabulated in Table 12.

Table 12.
Bootstrapping Results

Relationship	Original Sample (O)	Sample Mean (M)	STDEV	t-Statistic	p-Value	Result
Tax Socialization → Taxpayer Compliance	0.226	0.217	0.120	1.881	0.060	Not Significant
Tax System Digitalization → Taxpayer Compliance	-0.032	-0.013	0.112	0.286	0.775	Not Significant
Tax Literacy → Taxpayer Compliance	0.658	0.648	0.138	4.781	<0.001	Significant

Empirically, the inferential configuration reveals Tax Literacy as the sole determinant attaining a positive, statistically meaningful association with Taxpayer Compliance, whereas Tax Socialization and Tax System Digitalization fail to attain direct significance under the conventional 5% alpha criterion. With respect to H1, its empirical corroboration remains untenable: although Tax Socialization exhibits a positive path magnitude ($\beta = 0.226$), the corresponding inferential statistics remain insufficient for rejection of the null proposition ($t = 1.881$; $p = 0.060$). Analogously, H2 receives no empirical substantiation, given the minuscule coefficient attributed to Tax System Digitalization ($\beta = -0.032$; $p = 0.775$). Importantly, such an outcome cannot, mutatis mutandis, be construed as demonstrative evidence that digitalization engenders diminished taxpayer compliance.

Conversely, H3 attains empirical confirmation through the substantial positive contribution of Tax Literacy ($\beta = 0.658$; $t = 4.781$; $p < 0.001$), thereby designating this construct as the model's exclusive statistically significant direct predictor. Collectively, the explanatory architecture accounts for 66.3% of Taxpayer Compliance variability ($R^2 = 0.663$; adjusted $R^2 = 0.658$). Positive Q^2predict statistics further signify predictive relevance vis-à-vis the indicator-average benchmark; nevertheless, this criterion does not establish predictive superiority of the PLS-SEM specification over the linear-model benchmark. Hence, H4 should be construed as an evaluative, model-level assessment encompassing explanatory and predictive adequacy, rather than as a conventional simultaneity-based significance test.

Discussion

The Effect of Tax Socialization on Taxpayer Compliance

Empirically, Tax Socialization (X1) yields a positive estimated coefficient of 0.226; nevertheless, its inferential significance remains insufficient at the conventional 5%

threshold, as evidenced by p = 0.060. Hence, although dissemination of fiscal information, pedagogical intervention, and normative inculcation concerning tax obligations may continue to operate, their incremental explanatory capacity for taxpayer compliance appears attenuated once Tax Literacy and Tax System Digitalization enter the analytical specification concomitantly. Such a finding is plausibly explicable among teachers in Jumantono District, given their comparatively elevated compliance propensity and the fact that 67.1% of participants reported independently submitting Annual Tax Returns. Furthermore, an inner VIF of 3.457 for X1, alongside an HTMT coefficient of 0.896 between X1 and X2, signals appreciable empirical convergence among socialization, tax-related knowledge, and digitally mediated taxation experiences.

Viewed through the Theory of Planned Behavior, tax socialization constitutes an informational and normative antecedent potentially capable of configuring subjective norms, attitudinal orientations, and accessibility of taxation information (Ajzen, 1991). Yet, ceteris paribus no longer applies within the multivariate specification: once competing explanatory constructs are accommodated, these pathways fail to generate a sufficiently robust autonomous effect. This empirical pattern diverges from Zaikin et al. (2023), whose investigation documented a positive, statistically significant association between tax socialization and compliance, while converging with Limantoro et al. (2022), who demonstrated contextual variability in the efficacy of socialization. Aini et al. (2025) likewise underscored its pertinence for individual taxpayers. Accordingly, heterogeneity in outcomes may derive from material relevance, implementation intensity, taxpayer heterogeneity, and the extent to which socialization cultivates operational tax competence. Under Stewardship Theory, moreover, explanations concerning fiscal-revenue governance could engender governmental trust by portraying authorities as responsible stewards (Donaldson & Davis, 1991). However, because trust itself remained unoperationalized in this investigation, its potentially mediating or explanatory function cannot be empirically isolated, thereby offering a plausible rationale for the comparatively modest direct contribution attributable to socialization.

The Effect of Tax System Digitalization on Taxpayer Compliance

Empirically, Tax System Digitalization exhibits a coefficient of -0.032 and a p-value of 0.775, hence its ceteris paribus contribution to Taxpayer Compliance remains statistically indiscernible once Tax Socialization and Tax Literacy are held constant. With an effect magnitude of merely 0.001, the coefficient's proximity to the null point renders its negative sign substantively negligible; ergo, no causal inference that digitalization suppresses compliance is warranted. Interestingly, despite respondents' comparatively favorable appraisal of digitally mediated taxation, a proportion continued to depend upon third parties for Annual Tax Return submission. This phenomenon implies a disjunction between favorable technological appraisal and autonomous compliance praxis.

From a theoretical standpoint, the Technology Acceptance Model posits that utility perceptions and perceived simplicity constitute antecedents of technological acceptance (Davis, 1989). The evidence obtained herein does not invalidate TAM; rather, it delineates its explanatory boundary. Acceptance of digital fiscal infrastructure should not ipso facto be construed as an immediate augmentation of compliant behavior. Although digitalization can attenuate administrative burdens, substantive tax fulfillment remains contingent upon procedural literacy, documentary competence, and cognizance of prevailing fiscal

provisions. Concordantly, Oktaviani et al. (2025) demonstrated that Coretax utilization lacked a direct compliance effect, whereas tax literacy and service accessibility exerted meaningful influence. Contrariwise, Tambun and Riandini (2022), Sholihah and Yushita (2025), Natalia and Barli (2025), and Al Khoir and Muid (2025) documented positive digitalization effects, indicating that outcomes are contingent upon technological architecture, experiential familiarity, taxpayer heterogeneity, and complementary tax knowledge.

The Effect of Tax Literacy on Taxpayer Compliance

Empirical estimation demonstrates that Taxpayer Compliance is significantly and positively conditioned by Tax Literacy ($\beta = 0.658$; $p < 0.001$). Moreover, the magnitude of $f^2 = 0.474$ classifies its contribution as large, rendering Tax Literacy the sole exogenous construct that manifests a statistically meaningful direct pathway toward compliance within the estimated model. Operationally, literacy taxationis conceived herein beyond rudimentary conceptual cognition: it encompasses praxis-oriented comprehension concerning taxpayer rights and responsibilities, return-submission mechanisms, temporal filing constraints, applicable sanctions, together with autonomous retrieval and utilization of fiscal information. Such practical competence assumes particular salience given that 32.9% of participants remained insufficiently autonomous when undertaking tax reporting. Concomitantly, indicator X3.5, representing taxpayers' capacity to independently procure tax information and exploit digital taxation services, registered the lowest mean score among Tax Literacy indicators.

Within the Theory of Planned Behavior, this empirical configuration can be interpreted through perceived behavioral control; *mutatis mutandis*, greater informational mastery should augment an individual's subjective capability to execute tax obligations accurately (Ajzen, 1991). The observed coefficient accords with this theoretical proposition and corroborates Oktaviani et al. (2025), whose investigation documented a significant literacy-compliance nexus. Consonant evidence emerges from Sholihah and Yushita (2025) and Zaikin et al. (2023), particularly regarding the pivotal function of tax knowledge. Furthermore, Al Khoir and Muid (2025) established that tax knowledge alongside digital literacy enhances compliance among teachers. Collectively, this evidentiary congruence suggests that procedural-practical mastery of taxation bears a more proximate relationship with compliant conduct than the simple existence of digital infrastructure.

Overall Model Performance

At the aggregate level, Taxpayer Compliance exhibits an R^2 of 66.3%, denoting considerable variance-accounting capacity within the specified structural model. Such magnitude, however, should not be construed as evidence of universal predictor significance: ceteris paribus, only Tax Literacy manifests a statistically significant direct association, whereas Tax Socialization and Tax System Digitalization fail to attain significance. From a predictive-diagnostic standpoint, every Q^2predict statistic assumes a positive value, while CVPAT records performance superior to the Indicator Average benchmark, thereby substantiating predictive relevance. Contrariwise, the PLS-SEM specification remains inferior to the Linear Model benchmark. Ergo, consonant with the model-level appraisal of H4, the framework possesses substantial explanatory adequacy and benchmark-relative

predictive relevance; nevertheless, its out-of-sample prognostic capacity vis-à-vis a linear specification remains low, rendering explanatory utility more salient than predictive utility.

CONCLUSION

Empirical estimation via PLS-SEM, encompassing 207 teachers from Jumantono District, yields a differentiated explanatory configuration: Tax Literacy emerges as the sole statistically consequential antecedent of Taxpayer Compliance, exhibiting a positive direction and a large effect magnitude. Conversely, Tax Socialization and Tax System Digitalization manifest no statistically significant direct association with compliance. Collectively, these three exogenous constructs account for 66.3% of the endogenous construct's variance, thereby indicating substantial in-sample explanatory capacity. At the model-assessment level, H4 is corroborated insofar as predictive relevance exceeds the naïve reference benchmark; notwithstanding, vis-à-vis the linear-model benchmark, the model's predictive performance remains low. Ergo, the evidence implies that compliance is more proximally conditioned by functional tax knowledge and comprehension than by mere exposure to exogenous fiscal information or digital-service availability.

From a praxis-oriented perspective, tax authorities and educational institutions ought to recalibrate interventions toward applied tax-literacy enhancement, incorporating purposive guidance, digital-service facilitation, and hands-on reporting assistance so that taxpayer autonomy may progressively strengthen. Nevertheless, several caveats remain germane: cross-sectional and self-reported observations, confinement to teachers within a single district, indications of construct-level empirical redundancy, and comparatively weak predictive performance against the linear benchmark. Subsequent inquiries should encompass more heterogeneous populations, longitudinal architectures, and supplementary determinants including trust, tax awareness, tax morale, service quality, and digital literacy while deploying increasingly discriminating measurement instruments.

REFERENCES

Aini, A., Suhatmi, E. C., & Meikhati, E. (2025). Sosialisasi Pajak sebagai Moderasi Pengaruh Literasi Pajak dan Digitalisasi Pajak terhadap Kepatuhan Wajib Pajak. *Jurnal Bisnis Manajemen Dan Akuntansi (BISMAK)*, *5*(02), 84–98. https://doi.org/10.47701/bismak.v5i01.5386

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Al Khoir, T. D. A., & Muid, D. (2025). Pengaruh pengetahuan perpajakan, penerapan e-system perpajakan, dan literasi digital terhadap kepatuhan wajib pajak orang pribadi: Studi kasus wajib pajak orang pribadi guru SMA Negeri di Kecamatan Semarang Selatan. *Diponegoro Journal of Accounting*, *14*(2), 1–13.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

DJP. (2025). *Implementasi Coretax DJP*. Direktorat Jenderal Pajak. https://www.pajak.go.id/coretaxdjp

Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, *16*(1), 49–64. https://doi.org/10.1177/031289629101600103

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Karlinah, L, Sugondo, L. Y., & Laurentya, V. (2024). Kesadaran Pajak sebagai Mediasi dalam Pengaruh Pengetahuan dan Pemahaman Perpajakan terhadap Kepatuhan Wajib Pajak UMKM. *Owner*, *8*(3), 2235–2249. https://doi.org/10.33395/owner.v8i3.2296

KPP Pratama Karanganyar. (2026). *Data jumlah wajib pajak orang pribadi terdaftar dan realisasi penyampaian SPT Tahunan 2021–2026* [Unpublished data]. Kantor Pelayanan Pajak Pratama Karanganyar.

Liengaard, B. D., Sharma, P. N., Hult, G. T. M., Jensen, M. B., Sarstedt, M., Hair, J. F., & Ringle, C. M. (2021). Prediction: Coveted, Yet Forsaken? Introducing a Cross-Validated Predictive Ability Test in Partial Least Squares Path Modeling. *Decision Sciences*, *52*(2), 362–392. https://doi.org/10.1111/deci.12445

Limantoro, A. C., Iswati, S., & Rahmiati, A. (2022). The power of tax incentives on motorized vehicle tax compliance moderated by tax socialization in East Java. *Jurnal Akuntansi Dan Keuangan Indonesia*, *19*(2). https://doi.org/10.21002/jaki.2022.10

Ma'rufah, K., & Sari, R. P. (2023). Moderasi literasi pajak: Pengaruh tingkat pendidikan terhadap kepatuhan wajib pajak dosen di perguruan tinggi Surabaya. *Equilibrium: Jurnal Ilmiah Ekonomi, Manajemen Dan Akuntansi*, *12*(2), 134–142.

Nabila, S., Maheswari, A. S., Syindunata, K., Andini, A. R., & Ningsih, Y. M. (2025). Digital Marketing Strengthening CV. Kajeye Food Using Design Thinking Method. *Majapahit Journal of Islamic Finance and Management*, *5*(3), 2368–2387. https://doi.org/10.31538/mjifm.v5i3.456

Natalia, N. R., & Barli, H. (2025). Pengaruh Penerapan Sistem e-Filing, Tingkat Pemahaman Perpajakan Dan Sanksi Perpajakan Terhadap Kepatuhan Wajib Pajak Orang Pribadi. *Jurnal Portofolio : Jurnal Manajemen Dan Bisnis*, *4*(1), 39–53. https://doi.org/10.70704/jpjmb.v4i1.348

Oktaviani, D., Lestari, L., Doktoralina, C. M., Mareta, S., & Manshur, T. (2025). Kepatuhan wajib pajak: Pemanfaatan sistem Coretax, literasi pajak dan kemudahan akses layanan perpajakan dengan kesadaran pajak sebagai variabel moderasi. *Journal of Accounting and Finance Management*, *6*(5), 2275–2286. https://doi.org/10.38035/jafm.v6i5.2567

Ringle, C. M., Wende, S., & Becker, J.-M. (2024). *SmartPLS 4*. SmartPLS. https://www.smartpls.com

Samosir, H. E. (2026). Pengaruh Literasi Pajak, Sosialisasi Perpajakan, dan Modernisasi Sistem Pajak terhadap Kepatuhan Wajib Pajak UMKM. *RIGGS: Journal of Artificial Intelligence and Digital Business*, *5*(2), 5008–5015. https://doi.org/10.31004/riggs.v5i2.8473

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using

PLSpredict. *European Journal of Marketing*, *53*(11), 2322–2347. https://doi.org/10.1108/EJM-02-2019-0189

Sholihah, R., & Yushita, A. N. (2025). Pengaruh penerapan e-Billing, pengetahuan Automatic Exchange of Information (AEoI), dan pengetahuan pajak terhadap kepatuhan wajib pajak UMKM. *Nominal: Barometer Riset Akuntansi Dan Manajemen*, *14*(1), 55–69. https://doi.org/10.21831/nominal.v14i1.76688

Tambun, S., & Riandini, R. (2022). Dampak tax planning dan digitalisasi layanan pajak terhadap kepatuhan wajib pajak dimoderasi oleh nasionalisme. *Owner: Riset Dan Jurnal Akuntansi*, *6*(3), 2993–3004. https://doi.org/10.33395/owner.v6i3.909

Zaikin, M., Pagalung, G., & Rasyid, S. (2023). Pengaruh pengetahuan wajib pajak dan sosialisasi pajak terhadap kepatuhan wajib pajak dengan kesadaran wajib pajak sebagai variabel intervening. *Owner: Riset Dan Jurnal Akuntansi*, *7*(1), 57–76. https://doi.org/10.33395/owner.v7i1.1346.