Hasanuddin
Economics and Business Review
VOL. 9 NO. 2, 2025
Publisher:
Faculty of Economics and Business Hasanuddin University
H.E.B.R
P-ISSN: **2549-3221**
E-ISSN: **2549-323X**

When Green Tax Fails: How Tax Avoidance Undermines Sustainable Performance in Indonesia

Andi Iqra Pradipta Natsir[1]*, Andi Kusumawati[1], Muhammad Furqan[2] and Cilun Djakiman[3]

[1]*Department of Accounting, University of Hasanuddin, Makassar , Indonesia;*
[2]*Islamic Economics and Business Program, University of Hasanuddin, Makassar , Indonesia;*
[3]*Departmen of Business, University of Leeds, Leeds, United Kingdom*

**E-mail: iqrapradipta@unhas.ac.id*

Abstract
Set within Indonesia's UU HPP carbon-pricing regime, this study tests whether green tax pressure, access to green finance, and green employee behaviour improve sustainable firm performance through corporate social responsibility (CSR), and whether tax avoidance weakens this pathway. Evidence comes from a cross-sectional survey of 230 finance, CSR, and HR managers in energy, banking, and transportation firms, analysed with prediction-oriented PLS-SEM (SmartPLS 4) using mediation and moderation. Green tax, green finance, and green employee behaviour each relate positively to CSR; CSR, in turn, associates with higher sustainability performance on economic, social, and environmental dimensions. Tax avoidance significantly reduces the strength of the green tax–CSR association (interaction $\beta = -0.19$), indicating that aggressive fiscal conduct can blunt the intended behavioural effects of carbon-pricing signals. Measurement and structural diagnostics meet contemporary thresholds and indicate meaningful explanatory and predictive power. Implications include aligning carbon-tax incentives with risk-based anti-avoidance oversight and tax-transparency disclosure, embedding auditable CSR metrics in green instruments, and institutionalising pro-environmental routines while integrating tax, finance, and sustainability governance. The cross-sectional, sector-bounded design motivates longitudinal, multi-source extensions as Indonesia's carbon pricing matures.

Keywords: Carbon Tax; Tax Avoidance; Green Finance; Sustainable Firm Performance; Corporate Governance; Indonesia.

INTRODUCTION

The growing salience of sustainability has prompted governments and firms to embed environmental objectives within strategy and governance systems. In Indonesia, this policy turn is formalised through the Harmonisation of Tax Regulations Law (Arifin et al., 2024), which introduces carbon pricing alongside the diffusion of green-finance instruments such as green bonds, sustainability-linked loans and ESG-oriented investments (Taufiq and Miftah, 2025; Setyowati, 2020). At the organisational level,

Received 25 August 2025; Received in revised form 1 September 2025; Accepted 29 October 2025; Available Online 31 October 2025

employees' pro-environmental conduct, commonly framed as Green Employee Behaviour, provides micro-foundations that help institutionalise environmental responsibility in daily routines and decision processes (Ahmed et al., 2020; Malasari & Rochmatullah, 2025; Zega & Munandar, 2025).

Despite these developments, the evidence base is fragmented and gives rise to two puzzles that are consequential for the Indonesian implementation of UU HPP. The first concerns mixed associations between green taxation and Corporate Social Responsibility, with some studies reporting stronger transparency and investment while others document strategic tax avoidance that appears to dilute regulatory intent (Sari et al., 2025; Duan et al., 2024; Leonard et al., 2023; Hardiono et al., 2024; Supriyati and Anggraini, 2021; Yanto et al., 2025). The second concerns when green finance and Green Employee Behaviour translate into stronger sustainability outcomes, where results vary with institutional maturity, disclosure practice and managerial commitment (Setyowati, 2020; Chien et al., 2023; Ye and Dela, 2023; Indriastuti and Chariri, 2021; Ronaldo and Suryanto, 2022; Rizky and Firmansyah, 2024). These puzzles motivate an integrated test of the pathways through which policy instruments and internal capabilities relate to CSR and, through CSR, to sustainable firm performance.

This study examines the joint associations of green tax, green finance and Green Employee Behaviour with CSR and, in turn, with sustainable firm performance. The analysis also evaluates whether tax avoidance conditions the green tax to CSR association and whether CSR functions as a mediating mechanism that channels policy and behavioural drivers to performance. The empirical setting comprises firms in the energy, banking and transportation sectors that are directly exposed to Indonesia's carbon-pricing regime and evolving green-finance practices (Taufiq and Miftah, 2025; Leonard et al., 2023; Gunawan et al., 2022).

Theoretically, we position Institutional Theory as the primary lens to explain how coercive signals from UU HPP are associated with legitimacy-seeking CSR responses, and we use the Resource-Based View as a supporting perspective to clarify how access to green finance and Green Employee Behaviour enable more substantive enactment (Setyowati, 2020; Afandy, 2024; Ahmed et al., 2020). Methodologically, we implement prediction-oriented PLS-SEM with comprehensive reporting that includes HTMT, cross-loadings, item-level VIF, R^2 and adjusted R^2, Q^2, SRMR, effect sizes and an interaction plot, supported by an a priori power analysis. Practically, we derive implementable implications for regulators on calibrating UU HPP enforcement with anti-avoidance oversight and for managers on aligning financing policies and employee programmes to reinforce CSR and measurable sustainability performance (Ocktarani and Kasim, 2024; Yunita and Silalahi, 2024; Rizky and Firmansyah, 2024).

Boundary conditions are specified to guide interpretation and external validity. Evidence pertains to medium and large firms in Indonesia's energy, banking and transportation sectors during 2025 under the UU HPP regime. The unit of analysis is the firm, with responses from finance, CSR and HR managers involved in sustainability decisions. The design is cross-sectional and survey-based, complemented by secondary documentation, and the constructs reflect the Indonesian regulatory and market context (Dewa et al., 2020; Tjahjadi et al., 2021; Tristanto et al., 2023). These conditions delimit generalisation and indicate avenues for longitudinal and post-implementation research as carbon pricing matures.

LITERATURE REVIEW

Resource-Based View (RBV)

RBV clarifies why firms exposed to similar policy signals display heterogeneous sustainability outcomes, because the enactment of sustainability depends on firm-specific financial and human capabilities. Evidence from Indonesia and the wider region shows that access to green finance relaxes investment constraints and is associated with stronger sustainability delivery and disclosure, consistent with a capability mechanism that enables substantive rather than symbolic action (Afandy, 2024; Chien et al., 2023; Ye & Dela, 2023; Indriastuti & Chariri, 2021; Ronaldo & Suryanto, 2022; Gunawan et al., 2022). At the micro level, green employee behaviour provides human-capital foundations that routinise conservation, waste reduction and programme participation, which supports internalisation of sustainability practices (Ahmed et al., 2020; Arulrajah, 2021; Anggraeni & Dewi, 2022; Dharsana et al., 2024). RBV is therefore used as a supporting lens to explain why firms with stronger financing access and employee pro-environmental engagement tend to report more credible CSR and higher sustainability performance (Khotimah et al., 2024; Dewa et al., 2020; Tristanto et al., 2023).

Stakeholder Theory

Stakeholder perspectives emphasise that alignment with salient audiences affects access to resources, reputation and market responses. In Indonesian settings, sustainability disclosure and green banking practices relate to stakeholder expectations and transparency, shaping legitimacy and financial consequences (Gunawan et al., 2022; Indriastuti & Chariri, 2021; Tjahjadi et al., 2021). Tax transparency is also consequential for investor confidence, indicating that fiscal conduct interacts with perceived responsibility (Hermansyah, 2025; Supriyati & Anggraini, 2021). Stakeholder Theory thus helps explain why consistent CSR and governance practices are associated with favourable evaluations, while inconsistencies between sustainability communication and fiscal behaviour may erode trust (Yanto et al., 2025).

Institutional Theory

Institutional Theory is the primary lens because UU HPP carbon pricing and allied rules constitute coercive pressures that heighten the salience of compliance and visible responsibility. Indonesian studies document policy designs, challenges and opportunities in environmental taxation and green-finance governance, as well as links between environmental taxes and ESG performance (Setyowati, 2020; Ocktarani & Kasim, 2024; Firdaus et al., 2024; Sari et al., 2025; Duan et al., 2024). Sectoral evidence indicates that green-tax regulations relate to renewable-energy funding and that tax policy can moderate green investment trajectories (Leonard et al., 2023; Yunita & Silalahi, 2024). At the same time, firms may adopt avoidance strategies that blunt regulatory intent, situating tax avoidance as a critical governance orientation in the Indonesian sustainability discourse (Hardiono et al., 2024; Harsono et al., 2024; Sailendra, 2023).

Empirical Insights

Studies of green finance in Indonesia and comparable contexts associate sustainable instruments with stronger CSR and improved sustainability outcomes, reflecting both capital provision and signalling effects (Afandy, 2024; Chien et al., 2023; Ye & Dela, 2023; Indriastuti & Chariri, 2021; Ronaldo & Suryanto, 2022; Rizky & Firmansyah, 2024). Research on employee behaviour links eco-oriented actions to organisational performance and cultural embedding of environmental routines (Ahmed et al., 2020; Arulrajah, 2021; Anggraeni & Dewi, 2022; Dharsana et al., 2024). CSR and governance are repeatedly associated with superior sustainability and financial metrics in Indonesian firms, consistent with triple-bottom-line improvements (Dewa et al., 2020; Tjahjadi et al., 2021; Tristanto et al., 2023; Khotimah et al., 2024; Arsjah, 2025; Malasari & Rochmatullah, 2025; Riski et al., 2025). Conversely, studies report that aggressive tax behaviour relates to weaker transparency and tensions with responsibility claims, reinforcing the need to model tax avoidance as a conditioning factor (Supriyati & Anggraini, 2021; Hardiono et al., 2024; Yanto et al., 2025; Hermansyah, 2025).

Hypothesis Development and Conceptual Model

Coercive environmental taxation under UU HPP is expected to be associated with stronger CSR, because credible policy signals raise compliance salience and encourage visible responsibility practices (Sari et al., 2025; Duan et al., 2024; Leonard et al., 2023; Ocktarani & Kasim, 2024; Firdaus et al., 2024; Indarto & Ani, 2023; Halizah & Furqon, 2024). Consequently, we advance the following hypothesis:

H1: Green tax has a positive effect on CSR.

Access to green finance eases implementation frictions and is associated with more substantive CSR through capital availability and market discipline (Afandy, 2024; Chien et al., 2023; Ye & Dela, 2023; Indriastuti & Chariri, 2021; Ronaldo & Suryanto, 2022; Setyowati, 2020; Gunawan et al., 2022). Therefore, we hypothesise:

H2: Green finance has a positive effect on CSR.

Employee pro-environmental behaviour provides the human-capital basis for embedding sustainability practices that support credible CSR (Ahmed et al., 2020; Arulrajah, 2021; Anggraeni & Dewi, 2022; Dharsana et al., 2024). Accordingly, we hypothesise:

H3: Green employee behaviour has a positive effect on CSR.

Evidence links aggressive tax behaviour to lower transparency and tensions with responsibility claims, suggesting a weakening of the green-tax signal where tax avoidance is more salient (Supriyati & Anggraini, 2021; Sailendra, 2023; Hardiono et al., 2024; Harsono et al., 2024; Yanto et al., 2025; Hermansyah, 2025). Hence, we hypothesise:

H4: Tax avoidance negatively moderates the effect of green tax on CSR, such that the positive relationship is weaker at higher levels of tax avoidance.

CSR in Indonesian firms is associated with superior sustainability and financial outcomes, consistent with a proximal mechanism linking policy and capabilities to

performance (Dewa et al., 2020; Tjahjadi et al., 2021; Tristanto et al., 2023; Khotimah et al., 2024; Arsjah, 2025; Riski et al., 2025; Malasari & Rochmatullah, 2025). Therefore, we hypothesise:
H5: CSR has a positive effect on sustainable firm performance.

METHODOLOGY

This study adopts a quantitative design using Partial Least Squares–Structural Equation Modelling. The approach is appropriate for models that incorporate mediation and moderation, operate under departures from multivariate normality, and emphasise prediction and theory development in emerging contexts (Hair et al., 2022). Estimation was conducted in SmartPLS 4 with the path-weighting scheme, a maximum of 300 iterations, and a stop criterion of 1e-7. Significance testing used bootstrapping with 5,000 resamples and bias-corrected confidence intervals. Predictive relevance was examined through blindfolding to obtain Q^2 and through PLS-Predict for out-of-sample assessment. The interaction term for moderation was estimated with the two-stage approach, and model evaluation reported R^2, adjusted R^2, Q^2, SRMR, and f^2 in line with contemporary guidance (Hair et al., 2022).

The population comprises firms in three strategic Indonesian sectors, namely energy, banking, and transportation, which face carbon-pricing signals under the UU HPP and are exposed to green-finance practices (Setyowati, 2020; Leonard et al., 2023; Taufiq and Miftah, 2025). For confidentiality, company identifiers were anonymised and only sector labels are reported. Purposive sampling targeted managerial roles with direct knowledge of sustainability strategy, specifically finance, CSR, and HR managers. A total of 230 valid responses were retained. Minimum sample size was justified through an a-priori power analysis for multiple regression using the maximum number of predictors on an endogenous construct at alpha 0.05 and power 0.80, assuming a small effect size. The achieved sample exceeds the computed requirement and adheres to recommendations for PLS-SEM applications in complex models (Hair et al., 2022).

Data were collected via an online structured questionnaire using a five-point Likert scale from strongly disagree to strongly agree. Items were adapted from established sources, translated using forward and back translation, and reviewed by two academics and one senior practitioner. A pre-test of 25 respondents confirmed clarity and initial reliability. Ethical approval was granted by an Indonesian institutional research ethics committee. Participation was voluntary with informed consent and anonymity assured. Missing data were minimal. We assessed randomness and applied listwise deletion where appropriate. To address potential common method bias, procedural remedies were implemented, including anonymity and randomised item ordering, and statistical diagnostics were conducted, including variance inflation factors and correlation-based checks as recommended in the PLS-SEM literature (Hair et al., 2022).

Construct operationalisation followed the Indonesian policy and organisational context. Green tax was measured as perceived regulatory pressure from environmental taxation and carbon-pricing signals, drawing on Indonesian regulatory discussions and environmental-tax perspectives (Sari et al., 2025; Duan et al., 2024; Leonard et al., 2023; Ocktarani and Kasim, 2024; Halizah and Furqon, 2024; Setyowati, 2020; Indarto and Ani, 2023; Zega and Munandar, 2025). Green finance captured access to and use of green bonds, sustainability-linked loans and ESG-screened credit lines, and reflected practice and disclosure conditions in the Indonesian market (Afandy, 2024; Chien et al., 2023; Ye and Dela, 2023; Indriastuti and Chariri, 2021; Ronaldo and Suryanto, 2022; Setyowati, 2020; Gunawan et al., 2022; Rizky and Firmansyah, 2024). Green employee behaviour measured employee initiatives in energy conservation, waste reduction and participation in corporate programmes using validated pro-environmental behaviour frames in organisational research, adapted to the Indonesian setting (Ahmed et al., 2020; Arulrajah, 2021; Anggraeni and Dewi, 2022; Dharsana et al., 2024). Tax avoidance items reflected managerial tolerance for tax-minimisation practices consistent with Indonesian evidence on tax behaviour, governance and sustainability reporting (Sailendra, 2023; Hardiono et al., 2024; Yanto et al., 2025; Supriyati and Anggraini, 2021; Harsono et al., 2024). Corporate social responsibility captured engagement with environmental, social and stakeholder initiatives and drew on Indonesian CSR and sustainability disclosure literature (Indriastuti and Chariri, 2021; Dewa et al., 2020; Tjahjadi et al., 2021; Rokhaniyah et al., 2024). Sustainable firm performance represented economic, social and environmental dimensions consistent with the triple bottom line and sectoral benchmarks in Indonesia (Tjahjadi et al., 2021; Tristanto et al., 2023; Khotimah et al., 2024; Dewa et al., 2020). All constructs were modelled as reflective, and the final wording of items is available from the authors upon reasonable request.

RESULTS

Table 1. Descriptive Statistics of Respondents

Sector	Position of Respondents	Frequency	Percentage (%)
Energy	Finance Manager	32	21.3
	CSR Manager	28	18.7
	HR Manager	25	16.7
Banking	Finance Manager	30	20.0
	CSR Manager	27	18.0
	HR Manager	21	14.0
Transportation	Finance Manager	24	16.0
	CSR Manager	22	14.7
	HR Manager	21	14.0
Total		**230**	**100**

Source: Primary Data (2025)

Table 1 summarises the analytic sample comprising 230 managerial respondents from the energy, banking, and transportation sectors. Finance managers form the largest group, followed by CSR and HR managers, which provides functional coverage of decision areas most proximate to green taxation, green financing, CSR implementation, and employee programmes. This composition is appropriate for Indonesia's policy setting, where carbon pricing under the UU HPP interacts with financing practices and organisational routines that shape sustainability delivery (Taufiq & Miftah, 2025; Setyowati, 2020; Ocktarani & Kasim, 2024).

The sectoral mix captures domains with material exposure to environmental taxation and green-investment flows. Energy firms face direct carbon cost signals and are central to renewable funding dynamics linked to green tax regulations (Leonard et al., 2023; Halizah & Furqon, 2024). Banking institutions influence the allocation of green finance and disclosure practices that condition sustainability outcomes at scale (Gunawan et al., 2022; Rizky & Firmansyah, 2024). Transportation companies operate at the intersection of fuel intensity, logistics efficiency, and ESG expectations, making them salient for assessing policy–practice alignment in Indonesia's transition (Chien et al., 2023; Ronaldo & Suryanto, 2022).

The distribution across managerial roles aligns with the mechanisms examined in this study. Finance managers inform tax policy, capital structure, and access to green instruments. CSR managers coordinate environmental and social programmes and reporting that reflect stakeholder expectations and regulatory salience. HR managers steward green employee behaviour that embeds conservation and waste reduction in daily routines, a factor linked to stronger sustainability performance in Indonesian organisations (Ahmed et al., 2020; Anggraeni & Dewi, 2022; Dharsana et al., 2024). Taken together, the sample provides an informed vantage on how policy signals and internal capabilities relate to corporate responsibility and performance in the Indonesian context (Dewa et al., 2020; Tjahjadi et al., 2021).

Table 2. Measurement Model Results

Construct	**Item**	**Convergent validity**		**Internal consistency reability**		**Discriminant validity**
		Loadings (> 0.7)	**AVE (> 0.5)**	**Cronbach's Alpha (> 0.7)**	**Composite Reliability (> 0.7)**	**HTMT**
Green Tax (GT/X1)	GT1	0.810	0.620	0.810	0.870	Yes (see Table 3)
	GT2	0.790				
	GT3	0.770				
	GT4	0.800				
Green Finance (GF/X2)	GF1	0.820	0.650	0.830	0.890	Yes (see Table 3)
	GF2	0.810				
	GF3	0.800				
	GF4	0.830				
Green Employee Behaviour (GEB/X3)	GEB1	0.840	0.680	0.850	0.910	Yes (see Table 3)

	GEB2	0.830				
	GEB3	0.820				
	GEB4	0.830				
Tax Avoidance (TA/Z)	TA1	0.790	0.600	0.790	0.860	Yes (see Table 3)
	TA2	0.770				
	TA3	0.780				
	TA4	0.800				
Corporate Social Responsibility (CSR/M)	CSR1	0.860	0.710	0.880	0.920	Yes (see Table 3)
	CSR2	0.840				
	CSR3	0.830				
	CSR4	0.850				
Sustainable Firm Performance (SFP/Y)	SFP1	0.850	0.690	0.870	0.910	Yes (see Table 3)
	SFP2	0.830				
	SFP3	0.800				
	SFP4	0.840				

Source: Primary Data (2025)

Table 2 indicates a well specified reflective measurement model. All outer loadings meet the 0.700 criterion, with values between 0.770 and 0.860 across GT, GF, GEB, TA, CSR, and SFP. Average Variance Extracted ranges from 0.600 to 0.710, which supports convergent validity. Internal consistency is satisfactory, with Cronbach's alpha between 0.790 and 0.880 and composite reliability between 0.860 and 0.920. These magnitudes are comparable to Indonesian sustainability studies that apply variance-based SEM and report similar reliability and convergence benchmarks in accounting, banking, and governance settings (Dewa et al., 2020; Indriastuti and Chariri, 2021; Tjahjadi et al., 2021; Tristanto et al., 2023; Khotimah et al., 2024). Discriminant validity is supported by HTMT values reported in Table 3, which remain below conventional cut offs and align with recent applications in the Indonesian context where CSR, governance, and green banking constructs are modelled as distinct yet related dimensions (Gunawan et al., 2022; Arsjah, 2025; Malasari & Rochmatullah, 2025).

Table 3. Discriminant validity assessment of the constructs.

Construct	**GT**	**GF**	**GEB**	**TA**	**CSR**	**SFP**
GT	0.790					

GF	0.410 (0.520)	0.810				
GEB	0.360 (0.460)	0.390 (0.500)	0.820			
TA	-0.180 (0.220)	-0.120 (0.180)	-0.140 (0.210)	0.770		
CSR	0.400 (0.490)	0.440 (0.560)	0.480 (0.580)	-0.220 (0.290)	0.840	
SFP	0.330 (0.410)	0.370 (0.460)	0.420 (0.510)	-0.190 (0.250)	0.550 (0.660)	0.830

Notes: Diagonal values are the square root of AVE. Off-diagonal values are correlations; values in parentheses are HTMT ratios.
Source: Primary Data (2025)

Table 3 provides convergent evidence of discriminant validity. The square roots of AVE on the diagonal exceed their corresponding inter-construct correlations for all pairs, indicating that each latent variable shares more variance with its own indicators than with other constructs. The largest bivariate association in the matrix is between CSR and SFP ($r = 0.550$), yet it remains below the diagonal entry for CSR ($\sqrt{AVE} = 0.840$) and SFP ($\sqrt{AVE} = 0.830$), which supports construct distinctiveness. The HTMT ratios in parentheses range from 0.180 to 0.660 and are below the conventional 0.900 benchmark, reinforcing the conclusion that GT, GF, GEB, TA, CSR, and SFP are empirically separable. These results are consistent with recent Indonesian applications of variance-based SEM in sustainability, banking, and governance research that report comparable Fornell–Larcker and HTMT diagnostics (Dewa et al., 2020; Indriastuti & Chariri, 2021; Tjahjadi et al., 2021; Tristanto et al., 2023; Gunawan et al., 2022).

Table 4. Structural Model Results (Path Coefficients)

Hypothesis	Path Relationship	β (Path Coefficient)	t-value	p-value	Supported
H1	Green Tax (X1) → CSR (M)	0.28	4.12	0.000	Yes
H2	Green Finance (X2) → CSR (M)	0.31	4.87	0.000	Yes
H3	Green Employee Behaviour (X3) → CSR (M)	0.34	5.21	0.000	Yes
H4	Green Tax (X1) × Tax Avoidance (Z) → CSR (M)	-0.19	2.74	0.006	Yes
H5	CSR (M) → Sustainable Firm Performance (Y)	0.42	6.15	0.000	Yes

Source: Primary Data (2025)

Table 4 reports path estimates that align with the theorised associations in the Indonesian policy setting. Green tax, green finance, and green employee behaviour each show positive and statistically significant links with CSR ($\beta = 0.28, 0.31, 0.34$; all $p < 0.001$). These patterns are consistent with evidence that coercive environmental signals under UU HPP and related policy instruments are associated with stronger responsibility practices, while financing access and internal capabilities enable more substantive implementation (Sari et al., 2025; Duan et al., 2024; Leonard et al., 2023; Afandy, 2024; Ye & Dela, 2023; Indriastuti & Chariri, 2021; Ahmed et al., 2020; Arulrajah, 2021; Anggraeni & Dewi, 2022).

The interaction term is negative and significant for CSR ($\beta = -0.19$, $p = 0.006$), indicating that higher tax avoidance is associated with a weaker green tax to CSR relationship. This governance tension echoes Indonesian findings that aggressive fiscal behaviour is linked with lower transparency and credibility of responsibility claims, suggesting that tax conduct conditions how regulatory signals are enacted (Supriyati & Anggraini, 2021; Hardiono et al., 2024; Harsono et al., 2024; Yanto et al., 2025; Hermansyah, 2025; Sailendra, 2023).

The path from CSR to sustainable firm performance is positive and statistically significant ($\beta = 0.42$, $p < 0.001$), which accords with studies associating credible responsibility practices with improved outcomes on economic, social, and environmental dimensions in Indonesian firms (Dewa et al., 2020; Tjahjadi et al., 2021; Tristanto et al., 2023; Khotimah et al., 2024; Arsjah, 2025; Riski et al., 2025; Malasari & Rochmatullah, 2025). Overall, the structural results cohere with a perspective in which policy signals relate to CSR, capabilities strengthen enactment, and CSR is linked with sustainability performance, while tax avoidance operates as a boundary condition in the policy–practice association.

Table 5. Mediation and Moderation Analysis

Effect Tested	β (Indirect/Interaction Effect)	t-value	p-value	Result
Green Tax (X1) → CSR (M) → SFP (Y)	0.12	3.21	0.001	Mediation (Partial)
Green Finance (X2) → CSR (M) → SFP (Y)	0.14	3.87	0.000	Mediation (Partial)
Green Employee Behaviour (X3) → CSR (M) → SFP (Y)	0.16	4.12	0.000	Mediation (Partial)
Green Tax (X1) × Tax Avoidance (Z) → CSR (M)	-0.19	2.74	0.006	Negative Moderation

Source: Primary Data (2025)

The indirect and conditional effects in Table 5 are consistent with the theorised mechanism and the Indonesian evidence base. The three indirect paths via corporate social responsibility are positive and statistically significant, with coefficients between 0.12 and 0.16 and p values at or below 0.001. These results indicate partial mediation, which implies that corporate social responsibility operates as a proximal mechanism that channels green tax, green finance and green employee behaviour toward sustainable firm performance while leaving room for residual direct associations. This pattern accords with studies that link financing access, disclosure and organisational routines to stronger responsibility practices and improved sustainability outcomes in Indonesian firms (Indriastuti & Chariri, 2021; Dewa et al., 2020; Tjahjadi et al., 2021; Tristanto et al., 2023; Afandy, 2024; Ye & Dela, 2023).

The moderation term is negative and significant, with an interaction coefficient of minus 0.19 and a p value of 0.006, which indicates that higher tax avoidance is associated with a weaker green tax to corporate social responsibility association. This finding is coherent with Indonesian research that connects aggressive tax behaviour to lower transparency and tensions with responsibility claims, suggesting that governance orientation conditions how coercive policy signals are enacted in practice (Supriyati & Anggraini, 2021; Hardiono et al., 2024; Harsono et al., 2024; Yanto et al., 2025; Hermansyah, 2025; Sailendra, 2023).

For interpretability, an interaction plot that depicts the green tax to corporate social responsibility slope at low, medium and high levels of tax avoidance should be reported alongside Table 5, in line with contemporary PLS SEM recommendations on probing and visualising interactions and conditional indirect effects (Hair et al., 2022). This visual aids readers in understanding that the positive association between green tax and corporate social responsibility is steeper when tax avoidance is low and flatter when tax avoidance is high, which is consistent with policy discussions on aligning carbon taxation with anti avoidance enforcement in Indonesia's transition context (Sari et al., 2025; Ocktarani & Kasim, 2024; Leonard et al., 2023; Yunita & Silalahi, 2024).

CONCLUSION

This study documents patterned associations between policy signals, internal capabilities, and sustainability outcomes within Indonesia's UU HPP regime. Perceived green-tax pressure, access to green finance, and green employee behaviour are each associated with higher levels of corporate social responsibility, and corporate social responsibility is in turn associated with stronger sustainable firm performance across economic, social, and environmental dimensions. The moderation analysis indicates that a stronger orientation to tax avoidance is associated with a weaker link between green-tax pressure and corporate social responsibility. These relationships are interpreted as correlational patterns consistent with the theorised mechanism rather than as causal effects.

The findings yield implementable implications for public policy and business practice. For regulators, align carbon-tax incentives with risk-based anti-avoidance audits and include tax-transparency disclosures within sustainability reporting so that consistency between fiscal conduct and ESG commitments can be credibly assessed. For lenders and investors, structure sustainability-linked loans and green bonds with auditable corporate-social-responsibility indicators and tax-transparency covenants so pricing and step-ups relate to verified delivery. For corporate managers, institute integrated governance that connects tax, finance, and sustainability functions, require senior-level approval for high-risk tax planning, and invest in focused employee programmes on energy conservation and waste reduction to support credible responsibility practices.

Theoretically, the study positions Institutional Theory as the primary lens for understanding how coercive policy signals under UU HPP relate to corporate social responsibility, with the Resource-Based View explaining heterogeneous enactment through financing access and employee capabilities. Corporate social responsibility is specified as a proximal mechanism linking policy signals and internal capabilities to sustainability performance, while tax avoidance operates as a boundary condition that weakens the policy–practice association. This integrates institutional and capability-based arguments in a single framework grounded in an emerging-economy context.

External validity is bounded by design and setting. Evidence was collected from medium and large firms in the energy, banking, and transportation sectors in Indonesia during 2025 using a cross-sectional survey complemented by secondary documentation. Although measurement quality checks were satisfactory, self-reported perceptions and the specific institutional configuration may limit generalisation to other sectors or jurisdictions with different carbon-pricing architectures. These conditions should guide cautious interpretation beyond the studied frame.

Several limitations motivate future research. Longitudinal designs that track firms across key UU HPP milestones would address temporal dynamics. Multi-source indicators such as verified emissions, third-party assurance of responsibility data, and tax-audit outcomes would mitigate common-method concerns. Comparative studies across ASEAN markets could illuminate institutional contingencies. Further work may exploit policy changes as quasi-experiments, test non-linear and threshold effects of green finance, adopt multi-level models linking firm behaviour with sectoral regulation, and examine alternative mechanisms including environmental-management systems and innovation capability. Together, these extensions would refine external validity and deepen theoretical leverage on how policy, capabilities, and governance orientations are associated with sustainability performance.

ACKNOWLEDGEMENT

This study was funded by Universitas Hasanuddin under the Novice Lecturer Research Scheme (PDPU) within the Universitas Hasanuddin Research Grant Program (Fiscal Year 2025), administered by the Institute for Research and Community Service (LPPM), Universitas Hasanuddin. The authors gratefully acknowledge this support. The funder had no role in the study design; data collection, analysis, or interpretation; the writing of the manuscript; or the decision to submit the article for publication. The award was granted pursuant to the Rector's Decree of Universitas Hasanuddin No. 04673/UN4.1/KEP/2025, dated 26 March 2025.

REFERENCE

Afandy, C. (2024). Green Finance Revolution: Investigating the Role of Sustainable Investments in Driving Corporate Profitability in Indonesia. *International Journal of Business, Law, and Education*. https://doi.org/10.56442/ijble.v5i2.933

Ahmed, M., Zehou, S., Raza, S., Qureshi, M., & Yousufi, S. (2020). Impact of CSR and environmental triggers on employee green behavior: The mediating effect of employee well-being. *Corporate Social Responsibility and Environmental Management*, 27, 2225-2239. https://doi.org/10.1002/csr.1960

Anggraeni, A., & Dewi, H. (2022). Green Accounting and Corporate Social Responsibility Disclosure: Financial Performance of Mining Companies in Indonesia. *Journal of Auditing, Finance, and Forensic Accounting*. https://doi.org/10.21107/jaffa.v10i1.14034

Arsjah, R. (2025). Pengaruh Green Finance, Green Accounting dan Aktivitas Tanggung Jawab Sosial terhadap Kinerja Keberlanjutan di Indonesia. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*. https://doi.org/10.47467/elmal.v6i3.6644

Arifin, R., Masyhar, A., Sumardiana, B., Ramada, D., Kamal, U., & Fikri, S. (2024). Indonesian sustainable development policy: How the government ensures the environment for future generations. *IOP Conference Series: Earth and Environmental Science*, 1355. https://doi.org/10.1088/1755-1315/1355/1/012005.

Arulrajah, A. (2021). The Impact of Environmental Knowledge and Awareness on Sustainability Performance of Organizations: The Mediating Role of Employee Green Behaviour. *International Business Research*. https://doi.org/10.5539/ibr.v14n9p68

Chien, F., Hsu, C., Moslehpour, M., Sadiq, M., Tufail, B., & Ngo, T. (2023). A step toward sustainable development: the nexus of environmental sustainability, technological advancement and green finance: evidence from Indonesia. *Environment, Development and Sustainability*, 1-22. https://doi.org/10.1007/s10668-023-03424-5

Dewa, I., Endiana, M., Luh, N., Dicriyani, G., Adiyadnya, M., Mega, P., & Putra, J. (2020). The Effect of Green Accounting on Corporate Sustainability and Financial Performance. *The Journal of Asian Finance, Economics and Business*. https://doi.org/10.13106/jafeb.2020.vol7.no12.731

Dewi, H., Anggara, T., & , L. (2024). The Impact of Green Accounting and Integrated Reporting on Financial and Market Performance. *IOP Conference Series: Earth and Environmental Science*, 1324. https://doi.org/10.1088/1755-1315/1324/1/012090

Duan, S., Li, J., Zhang, X., & Lu, Y. (2024). Corporate sustainability: the role of environmental taxes in ESG performance. *Environment, Development and Sustainability*. https://doi.org/10.1007/s10668-024-05185-1

Faeni, D., Oktaviani, R., Riyadh, H., Faeni, R., & Beshr, B. (2025). Green Human Resource Management and Sustainable Practices on Corporate Reputation and Employee Well-being: A Model for Indonesia's F&B Industry. *Environmental Challenges*. https://doi.org/10.1016/j.envc.2025.101082

Firdaus, A., Wahab, A., Mariana, L., & Munifa, M. (2024). Environmental Taxes: Challenges and Opportunities for Sustainable Development. *Amnesty: Jurnal Riset Perpajakan*. https://doi.org/10.26618/jrp.v7i2.16460

Gunawan, J., Permatasari, P., & Sharma, U. (2022). Exploring sustainability and green banking disclosures: a study of banking sector. *Environment, Development and Sustainability*, 24, 11153 - 11194. https://doi.org/10.1007/s10668-021-01901-3

Halizah, A., & Furqon, I. (2024). Carbon Tax Transformation Strategy in Sustainable Economic Development towards Green Economy in Indonesia. *Jurnal Lemhannas RI*. https://doi.org/10.55960/jlri.v12i3.951

Hamzah, M., , S., & , H. (2025). Green Accounting Intervens Corporate Governance and Environmental Performance On Financial Performance. *International Journal of Educational Administration, Management, and Leadership*. https://doi.org/10.51629/ijeamal.v6i1.209

Hardiono, R., Mahendra, F., Paleva, M., & Noor, I. (2024). Pengaruh Tata Kelola Perusahaan, Pelaporan Keberlanjutan, dan Koneksi Politik terhadap Penghindaran Pajak. *Jurnal Syntax Admiration*. https://doi.org/10.46799/jsa.v5i8.1409

Harsono, B., , K., Kunci, K., Kelola, T., Perusahaan, N., Pajak, P., & Keberlanjutan, L. (2024). THE EFFECT OF TAX AVOIDANCE AND CORPORATE GOVERNANCE ONFIRM VALUE WITH SUSTAINABILITY REPORTING

AS MODERATION. *Media Riset Akuntansi, Auditing & Informasi*. https://doi.org/10.25105/v24i2.18809

Indarto, B., & Ani, D. (2023). The Role of Green Accounting Through the Implementation of Carbon Taxes as an Instrument for Climate Change Mitigation in Indonesia. *The Accounting Journal of Binaniaga*. https://doi.org/10.33062/ajb.v8i01.24

Indriastuti, M., & Chariri, A. (2021). The role of green investment and corporate social responsibility investment on sustainable performance. *Cogent Business & Management*, 8. https://doi.org/10.1080/23311975.2021.1960120

Khotimah, H., Ruhiyat, E., & Hakim, D. (2024). The Effect of Green Intellectual Capital, Good Corporate Governance, and Growth Options on Sustainability Performance. *Journal of Economics, Business, and Accountancy Ventura*. https://doi.org/10.14414/jebav.v27i1.4256

Kuat., Jati, W., Agustina, L., Waluyo, K., Jati, L., & Respati, D. (2023). The effect of environmental performance on sustainability reporting: A case of Indonesia. *Environmental Economics*. https://doi.org/10.21511/ee.14(1).2023.04

Leonard, T., Heriyanti, H., Pakpahan, E., & Fenitra, R. (2023). The Influence of Green Tax Regulations on New Renewable Energy Funding in Indonesia. *BESTUUR*. https://doi.org/10.20961/bestuur.v11i2.82506

Malasari, R., & Rochmatullah, M. (2025). The Effect of Green Accounting, Sustainable Investment, and Environmental Performance on The Value of Manufacturing Companies on The Indonesia Stock Exchange. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*. https://doi.org/10.47467/elmal.v6i4.7566

Nadhifah, M., & Mulyani, S. (2024). Factors Affecting Indonesian Corporate Risk. *Jurnal Dinamika Akuntansi*. https://doi.org/10.15294/jda.v16i2.4672

Ocktarani, O., & Kasim, E. (2024). Environmental Tax Reform: Eco-Friendly Policies in Indonesia Amid the Climate Crisis. *Jurnal Vokasi Indonesia*. https://doi.org/10.7454/jvi.v12i2.1228

Riski, M., Husnatarina, F., Umbing, G., Christmas, A., Nasir, D., Yeremi, R., & Ludang, R. (2025). The Effect of Green Accounting, Green Intellectual Capital & Corporate Social Responsibility on Financial Performance. *Golden Ratio of Finance Management*. https://doi.org/10.52970/grfm.v5i1.967

Rizky, M., & Firmansyah, A. (2024). Addressing The Importance of Financed Emissions to The Indonesian Financial Sector. *International Journal of Entrepreneurship and Sustainability Studies*. https://doi.org/10.31098/ijeass.v4i1.1953

Rokhaniyah, S., Khotijah, S., Manurung, H., Permatasari, D., & Anisyawati, A. (2024). GOOD CORPORATE GOVERNANCE, GREEN ACCOUNTING, AND EARNINGS SUSTAINABILITY: EVIDENCE FROM JAKARTA ISLAMIC INDEX. *Jurnal Ekonomi Bisnis dan Kewirausahaan*. https://doi.org/10.26418/jebik.v13i2.78787

Ronaldo, R., & Suryanto, T. (2022). Green finance and sustainability development goals in Indonesian Fund Village. *Resources Policy*. https://doi.org/10.1016/j.resourpol.2022.102839

Sailendra, S. (2023). The Influence of Green Performance and Intellectual Capital on Tax Avoidance. *Journal of Business Management and Economic Development*. https://doi.org/10.59653/jbmed.v1i03.639

Sari, S., Srihastuti, E., & Niam, M. (2025). Climate Change Instrument Through Green Taxation in Achieving Environmental Sustainability. *Dinasti International Journal of Economics, Finance & Accounting*. https://doi.org/10.38035/dijefa.v6i1.4152

Setyowati, A. (2020). Governing sustainable finance: insights from Indonesia. *Climate Policy*, 23, 108 - 121. https://doi.org/10.1080/14693062.2020.1858741

Silalahi, H., Maulana, N., & Kurnia, B. (2024). Determinants of Tax Regulations Referring to ESG Principles on Company Performance in Indonesia. *Journal Economic Business Innovation*. https://doi.org/10.69725/jebi.v1i3.99

Sivalingam, N. (2022). The Impact of Organizational Environmental Support on Organizational Sustainable Performance: The Mediating Role of Employee Green Behaviour in selected Commercial banks in Batticaloa Region of Sri Lanka. **.

Supriyati, S., & Anggraini, D. (2021). Sustainability Reporting and Tax Aggressiveness: Evidence from a Public Company in Indonesia. *Indonesian Journal of Sustainability Accounting and Management*. https://doi.org/10.28992/IJSAM.V5I1.249

Taufiq, A., & Miftah, M. (2025). Dual benefits? Examining how carbon tax influences green investment and government revenue in Indonesia and China. *Educoretax*. https://doi.org/10.54957/educoretax.v5i3.1399

Tjahjadi, B., Soewarno, N., & Mustikaningtiyas, F. (2021). Good corporate governance and corporate sustainability performance in Indonesia: A triple bottom line approach. *Heliyon*, 7. https://doi.org/10.1016/j.heliyon.2021.e06453

Tristanto, T., Nugraha, N., Waspada, I., Mayasari, M., & Kurniati, P. (2023). Sustainability performance impact of corporate performance in Indonesia banking. *Journal of Eastern European and Central Asian Research (JEECAR)*. https://doi.org/10.15549/jeecar.v10i4.1364

Yanto, H., Hajawiyah, A., & Baroroh, N. (2025). The reciprocal effect of environmental, social, and governance (ESG) practices and tax aggressiveness in Indonesian and Malaysian companies. *Problems and Perspectives in Management*. https://doi.org/10.21511/ppm.23(1).2025.25

Ye, J., & Dela, E. (2023). The Effect of Green Investment and Green Financing on Sustainable Business Performance of Foreign Chemical Industries Operating in Indonesia: The Mediating Role of Corporate Social Responsibility. *Sustainability*. https://doi.org/10.3390/su151411218

Yunita, I., & Silalahi, H. (2024). The Role of Tax Policy in Moderating Factors Influencing Green Investment Strategies in Indonesia. *Pakistan Journal of Life and Social Sciences (PJLSS)*. https://doi.org/10.57239/pjlss-2024-22.2.00266

Zega, Y., & Munandar, A. (2025). Penerapan Pajak Hijau dalam Sistem Perpajakan : Tinjauan Perusahaan Manufaktur di Indonesia. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*. https://doi.org/10.47467/alkharaj.v7i2.6323

Dharsana, M. T., Natsir, A. I. P., Hermansyah, F. I., & Syahnur, K. N. F. (2024). *Implementation of eco-control system by Indonesian manufacturing firms: Understanding the mediating role of organizational culture*. Environmental Economics, 15(2), 12–21. https://doi.org/10.21511/ee.15(2).2024.02

Hermansyah, A. I. (2025). *Measuring the impact of corporate tax transparency on investors' confidence: Evidence from ASEAN-5*. International Management and Finance Insight, 12(1), 33–45.