THE EFFECT OF PROCEDURAL, DISTRIBUTIVE AND RETRIBUTIVE JUSTICE ON TAXPAYER'S COMPLIANCE

Muhammad Wisnu Girindratama[1*], Hari Hananto[2], Moh. Krisna Maulana[3]
[1,2,3] Department of Accounting, University of Surabaya, Indonesia
[*]Email: wisnugirindratama@staff.ubaya.ac.id

ABSTRACT

This study is motivated by the persistently low level of tax compliance in many developing countries, indicating that enforcement-based approaches alone are not fully effective. Therefore, it is important to understand psychological factors, particularly perceptions of fairness, in shaping taxpayer behavior. This study examines the effects of distributive justice, procedural justice, and retributive justice on tax compliance, grounded in justice theory. Using a quantitative approach and structural equation modeling, the results show that all three dimensions of justice have a positive and significant effect ($p < 0.05$) on tax compliance. These findings confirm that perceptions of fairness in the allocation of tax burdens, administrative processes, and the implementation of sanctions play a crucial role in encouraging compliance. In addition, the analysis of control variables reveals significant variations in compliance patterns across demographic groups, particularly based on gender, age, and education level. This study contributes to the behavioral taxation literature by emphasizing the central role of fairness in taxpayer decision-making, and provides practical implications for tax authorities to design policies that are more equitable, transparent, and responsive in order to enhance sustainable tax compliance.

Keywords : Procedural Justice, Distributive Justice, Retributive Justice, Tax Compliance, Tax Justice Perception.

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1. INTRODUCTION

Justice, as a philosophical and societal construct, plays a pivotal role in shaping individuals' perceptions of the legitimacy and justice of state institutions, including the taxation system. In the context of tax compliance, perceptions of justice not only influence moral judgments but also guide behavioral s towards fulfilling civic obligations (Al-Rahamneh et al., 2023; Belahouaoui & Attak, 2023). Taxation, by its nature, involves a transfer of private resources to the public domain, and thus inherently provokes questions of justice—how taxes are imposed, how burdens are distributed, and how violators are sanctioned (Arlen, 2022; Risse & Meyer, 2019). These aspects are commonly conceptualized through the lenses of procedural, distributive, and retributive justice (Hasan et al., 2024; Khan & Tjaraka, 2024). Procedural justice emphasizes the justice of the processes and mechanisms through which tax policies are implemented (Murphy et al., 2016; Radburn & Stott, 2019). Distributive justice centers on the perceived equity of tax burdens and benefits (Azmi & Daud, 2024). Retributive justice, meanwhile, concerns the perceived justice in the punishment of non-compliant taxpayers (Damayanti et al., 2020). Each of these dimensions taps into a taxpayer's moral reasoning and sense of trust in the tax authority, which, in turn, affects the willingness to comply voluntarily (Rashid et al., 2021).

Tax compliance has long been a critical concern for governments worldwide, particularly in developing economies where tax revenues are essential for financing public goods and services (Belahouaoui & Attak, 2024; Girindratama et al., 2024; Rahmi et al., 2024). In Indonesia, the tax-to-GDP ratio remains one of the lowest in the region, highlighting persistent challenges in fostering voluntary compliance among taxpayers (Inasius et al., 2020). While much of the existing literature has focused on deterrence-based models that emphasise audits, penalties, and enforcement strategies (Abdul-Jabbar & Bin-Nashwan, 2022; Christian, 2017), an emerging body of research suggests that taxpayers' perceptions of justice in the tax system significantly influence their willingness to comply (Musimenta et al., 2017; Nkundabanyanga et al., 2017). This shift reflects a growing recognition that tax compliance is not solely a product of coercive measures, but is also shaped by individual and collective moral evaluations of the tax system's justice.

This study adopts Heuristic Fairness Theory (HFT) to investigate how individuals form justice judgments related to tax compliance. HFT posits that when people face complex decisions—such as assessing the justice of a tax system—they often rely on heuristics, or mental shortcuts, rather than deliberate, comprehensive reasoning (Hunt et al., 2024). These heuristics are influenced by salient cues from authority behavior, past experiences, and emotional reactions. In tax contexts, taxpayers may not fully analyze laws or fiscal data but instead infer justice based on how they are treated, what they receive in return, and how violators are sanctioned (Hunt et al., 2024).

Recent studies have applied HFT in public policy to explain how citizens' perceptions of justice emerge in low-information environments, such as during tax audits or mass tax reporting periods (Habib et al., 2023). This perspective is particularly relevant in developing countries, where institutional trust may be fragile and taxpayers' perceptions are shaped more by symbolic cues than rational analysis (Thapa Karki et al., 2021). Within this theoretical lens, this study focuses on three heuristics of fairness: procedural, distributive, and retributive justice, which serve as cognitive shortcuts for evaluating tax system legitimacy.

Under HFT, procedural justice serves as a salient heuristic for justice—when taxpayers feel that authorities treat them with respect, neutrality, and voice, they infer that the system is generally fair (Wever & Ybema, 2024). These signals can be particularly powerful in high-ambiguity situations, such as when taxpayers are unsure about the accuracy of tax laws of the government (König et al., 2020).

Recent studies have shown that perceptions of procedural justice increase institutional trust and voluntary compliance, even when outcomes are unfavorable (Campbell et al., 2020; Sun et al., 2021). Murphy et al. (2016) found that procedural justice is more influential than deterrence in shaping compliances. Given the

power of procedural cues as justice heuristics, we propose:

H1: Procedural justice has a positive effect on taxpayer compliance

Distributive justice, acts as another key heuristic through which taxpayers assess justice. Instead of conducting a rational cost-benefit analysis of tax-benefit ratios, individuals evaluate whether their contribution is proportionate to what others pay and what the state provides in return (Castañeda, 2024). These relative judgments often guide tax morale. Evidence supports the heuristic role of distributive justice in shaping taxpayer attitudes. Studies show that perceptions of tax burden equity (both horizontal and vertical) are associated with higher compliance (Abdu & Adem, 2023; Farrar et al., 2021). When taxpayers perceive the system as favoring elites or misallocating public funds, they are more likely to justify evasion (Cullen et al., 2021). Thus, distributive justice serves as a justice shortcut, especially in environments where transparency is low. Therefore we propose:

H2: Distributive justice has a positive effect on taxpayer compliance.

Retributive justice—how fairly and consistently tax violations are punished—also operates as a powerful justice heuristic (Gobena, 2023). According to HFT, individuals make intuitive judgments about the legitimacy of authority based on observed sanctions (Graaf, 2021). If enforcement is perceived as arbitrary or overly harsh, it may erode perceptions of justice, even if technically legal. While classic deterrence theory views punishment as a rational deterrent, HFT emphasizes the symbolic role of retribution. Fair and proportional punishment signals moral authority and reinforces tax system legitimacy (Amelio et al., 2024). Conversely, if enforcement is perceived as biased or politicized, it triggers reactance and erodes compliance motivation (Short, 2021). Hence, retributive justice functions as a cognitive shortcut in determining whether the tax system is worth obeying. Based on this, we propose:

H3: Retributive justice has a positive effect on taxpayer compliance.

Recent empirical studies have demonstrated that justice perceptions—particularly those related to procedural, distributive, and retributive justice—are powerful predictors of compliance behaviour (Campbell et al., 2020; Murphy et al., 2016). Procedural justice refers to the perceived justice of tax processes and decision-making procedures, such as transparency, impartiality, and respectful treatment by tax authorities (Niesiobędzka & Kołodziej, 2020). Taxpayers who perceive procedures as fair are more likely to trust the tax administration and develop a moral commitment to compliance (Nkundabanyanga et al., 2017). Distributive justice, on the other hand, concerns whether tax burdens and benefits are allocated equitably among citizens (Lindsay, 2018). When individuals believe that taxes are used for public welfare and that the wealthy contribute their fair share, their willingness to comply tends to increase (Gangl & Torgler, 2020; Khatimah & Girindratama, 2024). Lastly, retributive justice reflects perceptions of appropriate sanctions for non-compliance, which may reinforce voluntary compliance by deterring free-riding and affirming social norms (Damayanti et al., 2020).

Despite the theoretical importance of these justice dimensions, most existing studies have examined justice perceptions in isolation or have focused predominantly on procedural justice (Sabbagh & Schmitt, 2016). There is a pressing need to adopt a more holistic approach that integrates multiple facets of justice in understanding taxpayer behaviour (Hasan et al., 2024). This need is particularly acute in emerging economies like Indonesia, where issues of inequality, governance, and trust in institutions remain central to the tax compliance discourse (Hermawan et al., 2020; Rosid et al., 2018). Indonesian taxpayers often operate within an institutional environment characterised by perceived corruption, limited transparency, and uneven enforcement, all of which affect their justice judgments and compliance motivations (Maulidi et al., 2024; Rosid et al., 2018).

In line with these developments, this study aims to investigate how procedural, distributive, and retributive justice influence individual taxpayer compliance in Indonesia. Drawing on theories of justice and tax morale, we argue that perceptions of justice form a key psychological mechanism through which legitimacy and trust in tax authorities are built (Horodnic, 2018;

Murphy et al., 2016). While procedural justice may promote intrinsic motivation to comply, distributive and retributive justice contribute to the perception of legitimacy and reciprocity between the taxpayer and the state (Horodnic, 2018). In this respect, our research seeks to extend current understanding by examining the relative strength and interplay of these justice constructs in shaping voluntary compliance behaviours.

This research is significant for both theoretical and practical reasons. Theoretically, it enriches the literature on tax compliance by extending the justice-compliance nexus to a developing country context, where institutional trust and legal enforcement vary considerably. Practically, the findings offer actionable insights for policymakers aiming to improve voluntary compliance through non-coercive means, such as building institutional legitimacy and enhancing the perception of procedural justice. Beyond compliance rates, this study also speaks to broader questions of fiscal citizenship and democratic accountability, particularly in countries undergoing governance reform.

This study integrates the three justice dimensions—procedural, distributive, and retributive—into a comprehensive justice framework grounded in Heuristic Justice Theory. Rather than assuming taxpayers engage in rational deliberation, we posit that justice judgments emerge from mental shortcuts, based on how tax authorities act, how outcomes are distributed, and how violations are addressed.

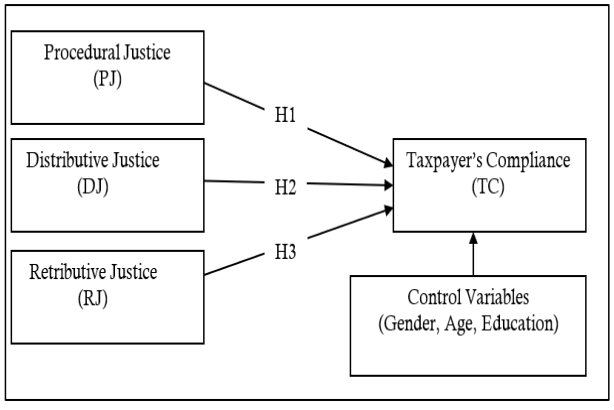


Figure 1. Research Framework

2. METHODS

At the outset of our study, we clearly communicated the purpose and scope of the research to all participants. The opening page of the questionnaire outlined that this study aimed to explore perceptions of tax justice and their relation to compliance behaviour. We underscored that the data would be used strictly for academic purposes, ensuring that participants were fully aware their responses would be handled confidentially and ethically. This transparency was intended to minimise response bias and build trust (Roberts & Allen, 2015). We guaranteed anonymity by assuring participants that no personal identifiers—such as names, tax IDs, or business registrations—would be collected or revealed. Ethical considerations were further upheld by adhering to informed consent protocols, in which we emphasized participants' rights, the voluntary nature of the research, and their freedom to withdraw at any point without consequence. Furthermore, we provided contact information for the researchers, giving participants the opportunity to seek clarification or raise concerns.

To ensure the data collected were relevant to the research objectives, we used purposive sampling targeting individual taxpayers with recent tax filing experience. The study was conducted in three major cities in East Java, Indonesia—Surabaya, Malang, and Sidoarjo—regions known for their diversity in taxpayer demographics and economic activity. These urban areas represent a suitable environment for investigating justice perceptions, as they encompass a broad range of income levels, professional backgrounds, and tax experiences (Pandiangan et al., 2023). Our target population consisted of individual taxpayers who had submitted their Annual Income Tax Return (SPT) for the most recent fiscal year. Eligibility criteria included being at least 21 years old, employed or self-employed, and having filed taxes independently in the past two years.

A total of 300 taxpayers were initially invited to participate, recruited through collaboration with local tax offices and community-based financial literacy groups. Out of these, 264 completed the questionnaire, resulting in an 88% response rate. After eliminating responses with substantial missing values or patterns of straight-lining (indicating low engagement), 221 usable responses remained. The final sample comprised 129 males and 92 females, with age ranging from 23 to 58 years. Most respondents held at least a bachelor's degree (64%), and the majority were

employed in the private sector (54%), followed by self-employed individuals (28%) and civil servants (18%).

We adopted established instruments to measure key constructs—procedural justice, distributive justice, retributive justice, tax compliance. Items for procedural justice was measured by 8 items scale adopted from Faizal et al. (2017). Items for distributive justice was measured by 5 items scale adopted from Faizal et al. (2017). Retributive justice was measured by 3 items scale adopted from Faizal et al. (2017) and updated using frameworks provided by Farrar et al. (2020), who emphasize context-specific perception in tax compliance behavior. Each construct was measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Tax compliance was measured by 10 items scale adopted from Hofmann et al. (2014), focusing on the willingness to accurately report income and pay taxes voluntarily. All items underwent a forward–backward translation process (Zaragoza-Salcedo et al., 2023) to ensure clarity and cultural equivalence in the Indonesian context. Prior to full deployment, we conducted a pilot test with 30 participants to assess face validity and reliability, leading to minor wording revisions for improved comprehension. The item measurements are illustrated in Appendix 1.

We employed Partial Least Squares Structural Equation Modelling (PLS-SEM) for data analysis using SmartPLS 4.0 software. PLS-SEM was selected due to its robustness in analysing complex models and its suitability for predictive research (Hair et al., 2019). Moreover, this technique accommodates non-normal data distributions and works well with small to medium sample sizes—common conditions in behavioral taxation research (Hair et al., 2014).

The measurement model in this study is specified using reflective constructs only, in which all indicators are treated as manifestations of their respective latent variables. Before model estimation, we tested the reliability and validity of each measurement construct. Internal consistency was evaluated using Cronbach's alpha and composite reliability (CR), both of which exceeded the recommended threshold of 0.7. Convergent and discriminant validity was assessed using Average Variance Extracted (AVE). Multicollinearity was checked through the Variance Inflation Factor (VIF) to ensure no collinearity issues among indicators.

To test the proposed relationships, we examined path coefficients, p-value and R^2. We also applied bootstrapping with 5,000 resamples to evaluate the significance of direct, indirect, and total effects in the structural model. The three dimensions of justice—distributive, procedural, and retributive justice—were modelled as independent variables predicting tax compliance.

To account for potential confounding effects, this study incorporates several demographic control variables, namely gender, age, and education level to the regression analysis. Age (1 = 20–35, 2 = 36–50, 3 = 51 or older), gender (0=female, 1 =male), and education level (1 = secondary education, 2 = diploma, 3 = degree) were coded as dummy variables.

Given that the data in this study were collected using a self-reported questionnaire, the potential presence of common method bias (CMB) was assessed. Following the recommendation of Kock (2015), this study employed the full collinearity test by examining the variance inflation factor (VIF) values for all latent constructs. Specifically, each construct was regressed on a common latent factor, and the resulting VIF values were used as an indicator of common method bias. A VIF value below the threshold of 3.3 suggests that the model is free from substantial common method bias. Thereby suggesting that common method bias is unlikely to be a serious concern and does not threaten the validity of the findings.

3. RESULTS AND DISCUSSION

Descriptive Statistics

Before evaluating the measurement model, it is essential to consider the descriptive statistics, as presented in Tables 1, 2, and 3. Table 1 illustrates that the majority of mean scores are above 4.00. indicating that respondents generally provided favorable responses. The highest average score is 4.646 (PJ2 and RJ1), while the lowest is 3.726 (TC10). Despite this, the range between scores is relatively small, suggesting general agreement among respondents. In terms of standard

deviation, the values are mostly moderate to low, reflecting consistent answers across items. The largest variability is found in TC10 (1.352), while PJ2 shows the smallest variation (0.608). Overall, these figures suggest that the responses are stable and of high quality, providing a solid foundation for further analysis.

Table 1. Descriptive Statistics

Items	Mean	St.Dev
TC1	4.230	0.665
TC2	4.619	0.756
TC3	4.124	0.843
TC4	4.389	0.769
TC5	4.407	0.724
TC6	4.168	0.830
TC7	4.504	0.742
TC8	4.159	0.826
TC9	4.221	0.725
TC10	3.726	1.352
PJ1	4.212	0.587
PJ2	4.646	0.608
PJ3	4.097	0.764
PJ4	4.106	0.845
PJ5	4.248	0.782
PJ6	3.903	0.882
PJ7	4.177	0.790
PJ8	4.195	1.055
DJ1	4.345	0.714
DJ2	4.265	0.893
DJ3	3.823	1.024
DJ4	4.124	1.057
DJ5	3.779	1.158
RJ1	4.646	0.579
RJ2	4.239	0.720
RJ3	4.292	0.859

Table 2 presents the descriptive statistics for the latent constructs. The median values are generally close to zero, which indicates that the data distribution is relatively centered. The range between minimum and maximum values shows a reasonable dispersion, reflecting a diverse spread of responses. All standard deviation values are 1.000. suggesting that the variables have been standardised. The excess kurtosis values vary, with RJ showing a high positive value (2.702), indicating a more peaked distribution, while TC displays a negative kurtosis (-0.774), suggesting a flatter shape. Skewness values are relatively close to zero, though some slight asymmetry is evident—RJ, for instance, is moderately left-skewed (-1.127). Overall, the data appears to be fairly normal and well-balanced, supporting its suitability for further analysis.

Table 2. Latent Variable Descriptives

Variables	Median	Min	Max	SD
DJ	0.034	-3.444	1.312	1.000
PJ	-0.271	-3.688	1.554	1.000
RJ	0.558	-4.624	1.129	1.000
TC	0.136	-2.779	1.464	1.000

Table 3 displays the correlations among the latent variables. All correlation coefficients are positive, indicating supportive and mutually reinforcing relationships between the constructs. The strongest association is observed between PJ and TC (0.830), suggesting that higher perceptions of procedural justice tend to coincide with stronger tax compliance. Similarly, the correlation between RJ and TC (0.807) and between DJ and TC (0.796) are also high, implying that both retributive and distributive justice are closely linked to compliance behavior. Although slightly lower, the relationship between DJ and RJ (0.664) still shows a solid positive connection. Overall, these correlations indicate that perceptions of justice—whether procedural, distributive, or retributive—tend to align positively with tax compliance.

Table 3. Latent Variable Correlation

Variables	DJ	PJ	RJ	TC
DJ	1.000	0.722	0.664	0.796
PJ	0.722	1.000	0.698	0.830
RJ	0.664	0.698	1.000	0.807
TC	0.796	0.830	0.807	1.000

Validity and Reliability Analysis

As shown in Table 4, the data fulfill the requirements for convergent validity. All factor loadings exceed the recommended threshold of 0.70. indicating that each indicator strongly reflects its corresponding latent variable. Furthermore, all VIF values are well below the critical limit of 5, demonstrating that multicollinearity does not pose a concern in the model. These findings confirm that the indicators are closely linked to their constructs

and provide solid evidence of convergent validity.

Table 4. Loading Factor and VIF

Items	Factor Loading	VIF
TC1	0.734	4.272
TC2	0.762	1.839
TC3	0.732	3.513
TC4	0.776	3.681
TC5	0.724	3.473
TC6	0.709	3.059
TC7	0.742	2.105
TC8	0.787	2.374
TC9	0.705	4.940
TC10	0.754	3.401
PJ1	0.877	2.875
PJ2	0.748	2.060
PJ3	0.808	2.268
PJ4	0.798	3.249
PJ5	0.732	2.437
PJ6	0.807	3.866
PJ7	0.747	3.079
PJ8	0.770	3.887
DJ1	0.729	1.454
DJ2	0.770	1.726
DJ3	0.717	1.756
DJ4	0.796	1.548
DJ5	0.763	1.606
RJ1	0.812	2.263
RJ2	0.760	1.027
RJ3	0.884	2.286

This conclusion is further supported by Table 5, which presents the results of reliability and construct validity assessments. The values of Cronbach's Alpha, rho_A, and Composite Reliability for all constructs are above 0.70. indicating strong internal consistency and overall reliability (Hair et al., 2019). In addition, the Average Variance Extracted (AVE) for each construct is greater than 0.50. confirming acceptable levels of convergent validity. Overall, these results affirm that the measurement model is both reliable and valid, strengthening confidence in the quality of the data.

Table 5. Construct Reliability and Validity

Variables	CA	rho_A	CR	AVE
DJ	0.768	0.779	0.840	0.513
PJ	0.812	0.879	0.853	0.543
RJ	0.736	0.776	0.775	0.551
TC	0.818	0.840	0.862	0.598

In terms of discriminant validity, the Fornell–Larcker criterion presented in Table 6 indicates that the square root of the average variance extracted for each construct exceeds its correlations with other constructs. The diagonal values (0.812 for PJ, 0.845 for DJ, 0.828 for RJ and 0.857 for TC). This pattern demonstrates that each construct shares greater variance with its own indicators than with those of other constructs, thereby supporting adequate discriminant validity and confirming that the constructs are empirically distinct (Hair et al., 2019).

Table 6. Fornell-Larcker Criterion

Variables	PJ	DJ	RJ	TC
PJ	0.812			
DJ	0.654	0.845		
RJ	0.601	0.689	0.828	
TC	0.672	0.701	0.658	0.857

Regression Analysis

Panel A of Table 7 outlines the hypothesis testing results for the primary variables. The analysis indicates that all three hypotheses are supported: H1 (DJ → TC, $\beta = 0.290$. $p = 0.002$), H2 (PJ → TC, $\beta = 0.313$, $p < 0.001$), and H3 (RJ → TC, $\beta = 0.340$. $p < 0.001$). These findings reveal that distributive, procedural, and retributive justice each have a significant and positive influence on tax compliance. The significance levels for all three paths are well below the 0.05 threshold, highlighting strong statistical support for the proposed relationships. This suggests that perceptions of justice play an essential role in shaping compliant behavior.

Table 7. Hypotheses Tests

Paths	*β*	Mean	Sig.	Note
Panel A: Main Variables				
H1: DJ -> TC	0.290	0.284	*0.002*	Supported
H2: PJ -> TC	0.313	0.320	*0.000*	Supported
H3: RJ -> TC	0.340	0.340	*0.000*	Supported
Panel B: Control Variables				
GEN -> TC	-0.175	-0.171	*0.000*	Signifjcant
AGE -> TC	0.003	0.001	*0.915*	Not Significant
EDU -> TC	0.025	0.027	*0.569*	Not Significant
Adjusted R^2			0,766	

In addition, Panel B of Table 7 reports the effects of control variables. Gender (GEN) has a significant negative effect on tax compliance (β = -0.175, p < 0.001), indicating that gender differences may influence compliance levels. In contrast, neither age (AGE, β = 0.003, p = 0.915) nor education level (EDU, β = 0.025, p = 0.569) show significant effects, as their p-values exceed 0.05. This implies that demographic characteristics such as age and education do not meaningfully contribute to variations in tax compliance within this sample. The model demonstrates a high level of explanatory power, as indicated by an adjusted R^2 of 0.766, meaning that approximately 76.6% of the variance in tax compliance can be explained by distributive justice, procedural justice, retributive justice, and the included control variables.

Additional Analysis

To gain deeper insights, we conducted additional analysis by separating the sample based on gender. Prior literature, such as Gull et al. (2023), highlights the influence of gender on decision-making processes. Building on this, we re-estimated the structural model from Table 6 by running separate regressions for male and female respondents, with the results presented in Tables 7.

Table 8. Additional Analysis

Paths	*β*	Mean	Sig.	Note
Panel A: Regression for Males				
DJ -> TC	0,697	0,634	*0,006***	Significant
PJ -> TC	0,137	0,18	*0,458*	Not Significant
RJ -> TC	0,168	0,194	*0,116*	Not Significant
AGE -> TC	0,065	0,062	*0,073**	Significant
EDU -> TC	-0,123	-0,112	*0,021***	Significant
Panel B: Regression for Females				
DJ -> TC	0,615	0,590	*0,012****	Significant
PJ -> TC	0,082	0,095	*0,412*	Not Significant
RJ -> TC	0,214	0,205	*0,034***	Significant
AGE -> TC	0,091	0,088	*0,028***	Significant
EDU -> TC	-0,156	-0,140	*0,026***	Significant

Notes: *,,*** shows significance level at 10%, 5% and 1%**

The regression results by gender reveal distinct patterns in the effects of justice dimensions on tax compliance. For the male group (Panel A), distributive justice (DJ) exhibits a positive and significant effect on tax compliance (β = 0.697; p < 0.01), indicating that fairness in outcome distribution is the primary driver of compliance among male taxpayers. In contrast, procedural justice (PJ) and retributive justice (RJ) do not show significant effects, suggesting that perceptions of procedures and sanctions are not key considerations in shaping compliance behavior for this group. Regarding control variables, age (AGE) has a positive and marginally significant effect (β = 0.065; p < 0.10), while education (EDU) shows a negative and significant effect (β = -0.123; p < 0.05), implying that older individuals tend to be more compliant, whereas higher levels of education are associated with lower tax compliance.

For the female group (Panel B), distributive justice (DJ) also has a positive and significant effect on tax compliance (β = 0.615; p < 0.01), confirming the consistent role of distributive fairness across genders. However, unlike the male group, retributive justice (RJ) is found to be positive and significant (β = 0.214; p < 0.05), indicating that female taxpayers are more responsive to sanction-based fairness. Procedural justice (PJ), on the other hand, remains insignificant, consistent with the findings for males. The control variables yield similar patterns, with age (AGE) positively and significantly influencing tax compliance (β = 0.091; p<0.05), and education (EDU) negatively and significantly affecting compliance (β = -0.156; p < 0.05).

Discussion

The present study offers compelling evidence regarding the influence of justice perceptions on tax compliance, enriching the ongoing discourse in behavioral tax research. Our findings reinforce the foundational assumptions in the tax compliance literature, particularly the positive and significant effects of distributive justice (DJ), procedural justice (PJ), and retributive justice (RJ) on tax compliance (TC). As shown in Table 7, all three justice dimensions significantly predict TC, lending strong support to the fairness framework commonly applied in fiscal behavior studies (Gobena, 2023; Khan & Tjaraka, 2024; Oladipo et al., 2022). This suggests that taxpayers' perceptions of equity in tax burdens (DJ),

fairness in tax procedures (PJ), and appropriateness of penalties (RJ) collectively play a vital role in shaping their willingness to comply with tax obligations. These results align with Heuristic Fairness Theory, which posit that individuals are more likely to comply voluntarily when they perceive institutions as fair and trustworthy (Castañeda, 2024).

Yet, when we dissect the model by gender (Table 8), intriguing asymmetries emerge that challenge the notion of uniform justice sensitivity. Overall, these findings highlight that distributive justice is the most robust determinant of tax compliance across both genders. However, the additional significance of retributive justice among females suggests a greater sensitivity to enforcement and sanction mechanisms. This implies that tax policy strategies combining fair distribution and credible enforcement may be particularly effective, especially in enhancing compliance among female taxpayers.

One plausible explanation lies in the differential cognitive and emotional responses to justice triggers. Prior studies suggest that women are generally more responsive to moral and social cues (Zalata et al., 2022), which may explain their heightened sensitivity to punitive fairness (RJ). The responsiveness of female taxpayers to retributive justice aligns with findings in organizational psychology, where women are often found to exhibit greater concern for ethical and relational dimensions of justice (Koay & Lim, 2023). On the other hand, the male respondents' emphasis on distributive aspects may indicate a more utilitarian perspective, driven by equity-based evaluations rather than normative expectations.

Interestingly, gender as a control variable also shows a significant negative relationship with TC, suggesting that males are less likely to comply than females, even when controlling for justice perceptions. This corroborates earlier findings that women tend to exhibit higher tax morale and ethical commitment (Owusu et al., 2022). From a policy perspective, this implies that communication strategies focusing solely on redistributive outcomes may be insufficient. For female taxpayers, incorporating messages around ethical responsibility and fairness in enforcement could foster stronger voluntary compliance.

Another notable finding is the limited role of demographic controls such as age and education. Table 7 show that neither variable significantly predicts TC, which may initially seem counterintuitive given their prominence in compliance research. However, once disaggregated by gender (Table 8), we observe that age becomes marginally significant for both men and women, indicating that older taxpayers—regardless of gender—tend to show higher compliance. This supports the life-cycle theory, which posits that older individuals may have stronger ties to institutions or a more developed sense of civic duty. Meanwhile, education exhibits a significant negative effect for both male and female respondents, a counterintuitive result that warrants further interpretation.

One possible explanation for the negative relationship between education and compliance lies in the informational advantage possessed by more educated individuals. Taxpayers with higher education levels may be more knowledgeable about tax loopholes, deductions, or enforcement weaknesses, potentially enabling more strategic noncompliance or aggressive tax planning (Richardson, 2006). This raises concerns about the assumption that education invariably leads to better compliance. Instead, the findings underscore the need to differentiate between civic education and technical financial literacy; the former fosters ethical behavior, while the latter, in isolation, may fuel opportunism.

4. CONCLUSIONS AND SUGGESTIONS

4.1. Conclusion

This study affirms that distributive justice, procedural justice, and retributive justice significantly influence tax compliance. These findings support the argument that fairness perceptions are integral to explaining taxpayer behavior. When individuals perceive that tax burdens are equitably allocated, procedures are fair, and penalties are appropriate, they are more likely to comply voluntarily with tax obligations. Distributive justice emerges as the most robust and consistent predictor of tax compliance across gender, while retributive justice plays an additional and significant role particularly among female taxpayers. These findings refine existing behavioral tax literature

by highlighting that fairness is not a uniform construct; rather, its dimensions operate with varying degrees of importance and differ across demographic groups.

Importantly, the analysis also reveals gender differences in how justice perceptions relate to compliance, although gender was treated as a control variable rather than a moderator. These differences suggest underlying variations in how male and female taxpayers interpret and respond to fairness-related cues, which may be useful for informing gender-sensitive tax communication strategies. Additionally, other demographic controls such as education and age demonstrated limited but noteworthy effects, suggesting that compliance decisions are partially shaped by individual characteristics beyond justice perceptions.

4.2. Limitations and Suggestions

From a practical standpoint, the results offer clearer policy implications. Tax authorities should prioritize strengthening perceptions of equitable tax burden distribution, for instance by improving transparency in how tax revenues are allocated and communicating the societal benefits derived from taxation. In addition, the significance of retributive justice—especially among female taxpayers—suggests that enforcement strategies should emphasize the consistency, proportionality, and fairness of penalties, rather than merely increasing their severity.

Well-designed communication strategies that clearly convey both the fairness of outcomes and the legitimacy of sanctions may enhance voluntary compliance more effectively than purely deterrence-based approaches. Furthermore, given the observed differences across gender, tax administrations may consider adopting more targeted communication strategies, recognizing that different groups may respond to distinct fairness cues.

This study has several limitations that should be acknowledged. First, the cross-sectional design prevents causal interpretation. Future research could adopt longitudinal or experimental designs to better establish causal directionality between justice perceptions and tax compliance. Second, while gender, age, and education were included as control variables, the analysis did not explore potential interactions between justice perceptions and other socio-demographic or psychological traits. Future studies could investigate such interactions or adopt a multilevel approach to examine contextual factors, such as regional trust in government or tax administration effectiveness. Third, the current study focused on three dimensions of justice—distributive, procedural, and retributive—while excluding other potentially relevant justice constructs such as interactional or informational justice. Including these dimensions in future models could provide a more nuanced understanding of how perceived fairness operates in tax contexts. Finally, the generalizability of findings may be limited to the specific sample or tax system studied. Future research could replicate the study in different national or institutional settings to validate and expand the theoretical implications of fairness-driven compliance.

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Appendix 1: Measurement Items

Tax Compliance

- I pay taxes because it is clear that this is what I am supposed to do.
- I pay taxes to support the state and other citizens.
- I pay taxes because I want to contribute to the greater good.
- I pay taxes because it is a normal thing to do.
- I pay taxes because I consider it my duty as a citizen.
- I pay taxes because of aggressive tax audits.
- I pay taxes because the tax authority frequently conducts audits.
- I pay taxes because I know that I will be audited.
- I pay taxes because the penalties for tax evasion are severe.
- I pay taxes because I do not know exactly how to evade taxes without attracting attention.

Procedural Justice

- The Directorate General of Taxes gives equal consideration to the views of all citizens.
- The Directorate General of Taxes respects individual rights as citizens.
- The Directorate General of Taxes takes public concerns into account when making decisions.
- The Directorate General of Taxes is concerned with protecting the rights of citizens in general.
- The Directorate General of Taxes considers the position of taxpayers.
- The Directorate General of Taxes strives to act fairly in making decisions.
- The Directorate General of Taxes obtains the type of information needed to make decisions.
- The Directorate General of Taxes is generally honest in its dealings with the public.

Distributive Justice

- Compared to the taxes I pay, I receive too few public benefits.
- Some groups in society benefit more from the tax system than I do.
- It is unfair that some people pay less tax than I do while at the same time taking advantage of various provisions.
- I think I pay too much tax.
- I think the tax system in Indonesia is fair.

Retributive Justice

- It is fair that individuals who intentionally engage in tax evasion should be sanctioned with the same level of penalty regardless of the amount of tax evaded.
- For fairness, the level of punishment for tax evasion should depend on the amount of tax evaded.
- I believe that the initial late payment penalties imposed on non-compliant taxpayers under the current tax system are fair.