

BETWEEN JUSTICE AND COMPLEXITY: UNVEILING TAX MORALE IN PEKANBARU



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Abstract

Taxation is a critical foundation for sustainable national growth, with tax morale serving as a key determinant of voluntary compliance. This study focuses on understanding tax morale by examining the effects of tax burden, system complexity, and tax justice. Primary data were collected from 100 Micro, Small, and Medium Enterprises (MSMEs) through an e-questionnaire using purposive sampling and analyzed with SEM-PLS. The findings reveal that perceived tax fairness exerts a positive and significant influence on tax morale, while system complexity has a significant negative effect. In contrast, tax burden shows no significant impact. These results highlight that fairness and simplicity in the tax system shape taxpayer attitudes more strongly than nominal tax levels. The study suggests that tax administrators should streamline procedures, ensure a fair distribution of tax burdens, and build a tax structure that is more transparent and just.

INTRODUCTION

Taxation serves as a primary instrument for governments to finance development, provide public services, and promote social justice (Fonseca Corona, 2024). Globally, tax revenues constitute the backbone of national economies (Metalova & Nenkova, 2021). In Indonesia, taxation plays an equally vital role, contributing more than 80% of state revenue (Ashfiya, 2024; Yossinomita & Hodijah, 2024). This underscores its critical influence on fiscal stability and national economic resilience. However, despite Indonesia's substantial tax potential, challenges in tax administration and compliance persist.

For nearly two decades, the country's tax ratio has stagnated between 10–12%. In 2022, the tax ratio was recorded at 10.39%—a figure far below the OECD average of approximately 34% and still lower than that of other ASEAN countries (Siddy, 2024). This gap reflects the considerable disparity between Indonesia's potential and actual tax revenue.

The tax compliance rate within the micro, small, and medium enterprise (MSME) sector remains a major factor contributing to Indonesia's low tax ratio. Despite generating more than 60% of the country's GDP and absorbing approximately 97% of the national labor force (djkn.kemenkeu.go.id, 2022; Saidi et al., 2025), the MSME sector's contribution to tax revenue remains minimal. Data from the Directorate General of Taxes (DJP) shows that, out of around 65 million MSME actors recorded in 2022, only 2.3 million possessed a Taxpayer Identification Number (Candra, 2024). This highlights the persistently low level of tax compliance within the sector. A similar pattern can be observed in Pekanbaru, Riau Province, which hosts a substantial MSME population. According to the Pekanbaru Department of Cooperatives and SMEs, as of August 2024, there were 26,684 MSMEs officially registered in the city (Pekanbaru.go.id, 2024). However, compliance remained limited, as in 2021, only about 4,095 MSME actors were registered with the Pekanbaru Primary Tax Office (KPP Pratama Pekanbaru) (Fitria et al., 2022). The limited contribution of MSMEs to tax revenue cannot be explained solely by financial capacity but is also shaped by psychological elements and perceptions, particularly tax morale (Fonseca Corona, 2024; Ibrahim et al., 2015). Tax morale refers to the awareness, values, and commitment of individuals or business owners to voluntarily fulfill their tax obligations (Pagalung & Habbe, 2021). Moreover, taxpayer behavior in specific localities may reflect unique socio-economic and psychological dynamics that differ from other regions.

A suitable theoretical lens is required to thoroughly understand tax morale and compliance behavior among MSMEs. One well-established and widely applied framework for analyzing individual behavior, including tax compliance, is the Theory of Planned Behavior (TPB) proposed by Ajzen in 1991. TPB posits that an individual's intention to engage in a behavior is shaped by three key elements: attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991; Pagalung & Habbe, 2021). This framework aligns with behavioral tax compliance theory, which emphasizes the rational, normative, and situational dimensions that influence taxpayer compliance (Kirchler, 2007; Torgler & Schneider, 2007). Accordingly, this study strengthens its theoretical foundation by synthesizing TPB with behavioral tax compliance theory to provide a more holistic understanding of tax morale among MSMEs. TPB has been widely applied to explain tax compliance behavior. However, most prior studies have focused primarily on internal individual factors, such as attitudes and awareness (Cenvintius, 2024; Night & Bananuka, 2020), social norms (Anjarwi et al., 2025), and perceived behavioral control factors (Buzohera, 2025; Lamidi et al., 2023; Singh et al., 2018). For MSME actors in developing countries like Indonesia, however, external structural and systemic factors also significantly shape tax morale (Castañeda, 2024). The integration of tax burden, system complexity, and perceived justice into the TPB framework provides a novel theoretical extension, as previous research has rarely combined these external and internal dimensions into a unified behavioral model. This integration highlights how structural conditions interact with individual perceptions, thereby expanding the explanatory power of TPB in the context of MSME taxation. This study aims to fill this gap by examining both external factors—namely, tax burden and system complexity—and an internal factor, perceived justice, in relation to the tax morale of MSME actors in Pekanbaru City. The research contributes to fiscal stability and more efficient tax policy design by identifying pathways to increase compliance in the MSME sector. Pekanbaru is chosen as the research context because of its distinctive role as a regional economic growth center in Sumatra, with a high concentration of MSMEs and persistent tax compliance challenges. Unlike other urban centers in Indonesia, Pekanbaru combines rapid economic expansion, strong MSME dominance, and consistently low compliance levels, making it a strategic site for exploring how systemic and psychological factors shape tax morale. This context not only ensures local relevance but also strengthens the potential transferability of findings to other emerging regional economies. The novelty of the study lies in addressing tax morale within a developing regional economy where MSMEs play a dominant role but

remain underexplored in the literature. Understanding this context is crucial for designing more effective tax policies that are sensitive to both local economic structures and behavioral dynamics.

Tax morale has become a critical concern for policymakers, as it is strongly linked to taxpayers' compliance levels, particularly among MSMEs (Alexander & Balavac-Orlic, 2022; Lima et al., 2025). High tax awareness reflects that taxpayers are conscious and committed to fulfilling their fiscal obligations, guided by personal values and ethics (Alabi et al., 2024). Within the MSME context, tax morale is even more crucial given their limited resources (Widjaja & Michael, 2024), relatively low tax knowledge (Alabi et al., 2024; Ellawule et al., 2024), and greater vulnerability to complex fiscal policies (Judijanto, 2024). MSME actors are generally more willing to comply when they perceive the tax system as fair and the imposed rates as reasonable (Adegbedzi et al., 2025; Günay, 2025). However, as of April 2023, only 16.5% of the Indonesian public expressed high trust in the tax administration (Annur, 2023). This persistently low level of trust may directly hinder the development of tax morale, thereby weakening voluntary compliance.

Several studies have confirmed that external factors, such as the tax burden, significantly influence tax morale and carry implications for sustainability performance outcomes (Fu & Zhang, 2025). In the MSME context, the perception of an excessive tax burden can reduce the willingness to comply voluntarily (Kintu et al., 2025; Michael et al., 2025). To design fairer and more effective tax policies, it is therefore essential to accurately assess the actual tax burden and its broader economic consequences (Opanasenko, 2024). Previous research has also highlighted that reducing tax burdens can stimulate greater investment and economic participation, particularly from the MSME sector (Akhmadeev et al., 2016; Paientko & Oparin, 2020). Many MSME owners perceive that the taxes they pay are disproportionate to the benefits received, a perception that undermines their sense of fairness and fiscal accountability (Günay, 2025). In this sense, an excessive tax burden may generate psychological resistance, directly weakening tax morale and discouraging voluntary compliance.

In addition to the tax burden, system complexity is another external factor that significantly shapes the tax morale of MSME actors (Dwi et al., 2024; Lima et al., 2025; Saptono et al., 2024). Prior studies demonstrate that ambiguity arising from vague tax laws and convoluted procedures diminishes taxpayers' motivation to fulfill their obligations (Saptono et al., 2024). In developing economies, strengthening tax administration through transparency, taxpayer education, and robust anti-corruption measures is widely recognized as a critical strategy to enhance tax morale and foster voluntary compliance (Soufiene et al., 2024). Accordingly, simplifying the tax system through user-friendly digitalization has become an important approach, particularly for MSMEs in regional areas. Digital taxation platforms have been shown to accelerate compliance processes and reduce bureaucratic barriers (Faisol & Norsain, 2024). Likewise, simplifying administrative principles can empower MSMEs to better understand, navigate, and participate in the tax system (Hutagaol, 2025). However, existing evidence also indicates that digitalization alone does not necessarily translate into higher compliance levels (Faisol & Norsain, 2024; Haggai & Odunga, 2025). In certain contexts, such as corporate taxation, preventive oversight by commissioners remains essential to provide strategic input and safeguard reputational interests (Diningrum & Kurniawati, 2024). Taken together, these insights suggest that excessive complexity in the tax system undermines tax morale by creating administrative barriers and uncertainty, thereby reducing the willingness of MSME taxpayers to comply voluntarily.

Taxpayers' sense of fairness, often referred to as perceived fairness, plays a pivotal role in shaping tax morale, standing on equal footing with external factors such as tax rates and system complexity. This perception reflects the extent to which taxpayers feel that tax rules are enforced justly and proportionately in accordance with their circumstances (Aktaş Güzel et al., 2019; Güzel et al., 2019). Recent data show that 33.2% of the public lacks trust in Indonesia's tax administration (Aktaş Güzel et al., 2019). Perceived justice is a predictive factor that influences tax morale (Budiadnyani et al., 2023; Timothy & Abbas, 2021). However, the relationship between public trust in tax governance and perceptions of fairness may vary across different cultural contexts (Aktaş Güzel et al., 2019). In Indonesia, close relationships between taxpayers and tax authorities have been shown to foster voluntary compliance (Agusti & Rahman, 2023). Moreover, individuals who perceive the tax system as fair are less likely to engage in tax evasion, thereby reinforcing tax morale (Martinez, 2025; Quamar

et al., 2025; Saptono et al., 2024). Overall, perceived fairness strengthens moral tax behavior, as taxpayers who believe the system is applied justly are more likely to demonstrate compliant and responsible fiscal conduct.

This research specifically addresses the persistent challenge of low tax morale among MSME owners in Indonesia, drawing on empirical evidence that highlights how both external and internal drivers influence taxpayer behavior. While many studies employ the Theory of Planned Behavior (TPB) to explain tax compliance, most emphasize internal factors such as attitudes, norms, and perceived control. In practice, however, MSME taxpayers are also shaped by broader external conditions, including perceived tax burden (Celikay, 2020; Fu & Zhang, 2025), system complexity (Saptono et al., 2024), and Fairness and fairness in the implementation of tax policy (Alexander & Balavac-Orlic, 2022; Giray et al., 2015; Güzel et al., 2019). A high perceived tax burden can create financial strain that diminishes voluntary compliance, while complex tax procedures may function as administrative barriers that foster psychological resistance. Conversely, perceptions of fairness within the tax system play a central role in shaping fiscal responsibility, as MSME owners who view tax enforcement as equitable are more inclined to demonstrate moral commitment to fulfilling their obligations. Collectively, these three factors strongly influence how MSME actors form perceptions and attitudes that drive their compliance decisions. Accordingly, this study examines the effects of tax burden, system complexity, and perceived fairness on tax morale among MSME actors in Pekanbaru City.

Although the topic of tax morale has been widely studied, most prior research remains centered on internal dimensions of taxpayer behavior, such as attitudes, subjective norms, and perceived behavioral control, in line with the Theory of Planned Behavior (TPB) (Ajzen, 1991; Farooq & Subhani, 2021; Night & Bananuka, 2020; Pagalung & Habbe, 2021). Other works have examined social influences and the adoption of tax administration technologies, such as the use of e-filing systems (Cenvintius, 2024; Kibona & Goyayi, 2025; Lamidi et al., 2023; Singh et al., 2018). However, evidence from developing economies, including Indonesia, demonstrates that structural and administrative external factors also play a decisive role in shaping tax morale (Castañeda, 2024). Despite this, empirical studies that explicitly incorporate tax burden, system complexity, and perceived fairness into the TPB framework remain scarce, particularly in the MSME context. This gap underscores the originality of the present research, which develops a more integrative model that connects internal cognitive processes with external systemic determinants. By focusing on Indonesia's MSME sector, a sector that makes a substantial contribution to GDP but accounts for only a limited share of tax revenue, this study not only advances local scholarship but also enriches global tax compliance literature by offering insights from a developing economy perspective.

Although prior studies have extensively examined internal factors within the TPB framework, their findings remain inconsistent. Some research identifies attitudes and subjective norms as the most dominant predictors of compliance (Buzohera, 2025; Michael et al., 2025), while others emphasize the influence of behavioral control and administrative support systems (Kibona & Goyayi, 2025; Night & Bananuka, 2020). Evidence from developing countries further reveals striking variations; for instance, studies in Nigeria and Ghana suggest that tax digitalization enhances compliance only in the early stages but fails to sustain its effect due to low tax literacy (Alabi et al., 2024; Ellawule et al., 2024). By contrast, research in Eastern Europe shows that moral awareness and perceptions of fairness exert stronger effects on compliance than system simplicity (Lima et al., 2025; Mickiewicz et al., 2019). These divergent findings underscore an ongoing academic debate on whether internal or external factors are more decisive in shaping tax morale. Against this backdrop, the present study contributes to the discourse by simultaneously integrating both dimensions in the Indonesian MSME context, which is structurally distinct from developed as well as other developing economies. Moreover, recent international scholarship has highlighted the importance of tax digitalization (Soufiene et al., 2024), technology-driven compliance transformation among SMEs (Faisol & Norsain, 2024) and comparative analyses across emerging economies (Fu & Zhang, 2025; Lima et al., 2025). This reinforces the urgency of conducting a critical and context-specific examination in a local setting such as Pekanbaru..

Unfortunately, studies on external factors such as tax burden and system complexity remain largely fragmented and are seldom integrated into a coherent behavioral framework. A high perceived

tax burden has been shown to reduce taxpayers' motivation to comply (Alabi et al., 2024; Fu & Zhang, 2025), while complex tax systems often create administrative barriers that undermine taxpayers' willingness to fulfill their obligations (Dwi et al., 2024; Lima et al., 2025; Saptono et al., 2024). At the same time, perceived fairness consistently emerges as a significant determinant of tax morale, yet its interaction with other external factors is rarely examined within a comprehensive and integrated analytical model (Aktaş Güzel et al., 2019; Faizal et al., 2017; Martinez, 2025).

Moreover, the MSME context in strategically important regions such as Pekanbaru—one of the main regional economic growth centers in Sumatra, but still experiencing low levels of tax compliance (Fitria et al., 2022; Pekanbaru.go.id, 2024)—has received limited scholarly attention in tax morale research. Local MSME segments face structural, behavioral, and compliance challenges that differ substantially from those of larger tax entities. Against this backdrop, the present study offers novelty by developing a conceptual model that integrates external determinants (tax burden and system complexity) with an internal factor (perceived justice) into a single framework grounded in the Theory of Planned Behavior and enriched by insights from behavioral tax compliance theory (Ajzen, 1991; Kirchler, 2007; Torgler & Schneider, 2007). This integrated approach has rarely been applied within MSME research in Indonesia. From a practical standpoint, the study contributes by providing an evidence-based foundation for designing more responsive and equitable fiscal policies, as well as for simplifying the tax system in ways that reflect the actual conditions of MSMEs. By situating Pekanbaru as the empirical setting, this research is expected to generate strategic insights for enhancing voluntary compliance through the strengthening of tax morale at the regional level.

Therefore, this research examines the effects of tax burden, system complexity, and perceived justice on the tax morale of MSME actors in Pekanbaru City. The study integrates both internal and external determinants into the TPB framework, further expanded by incorporating insights from behavioral tax compliance theory. In doing so, it contributes to a deeper understanding of the dynamics of tax morale among local MSMEs, an area that remains relatively underexplored in academic research. The findings are expected to provide a solid foundation for the development of more adaptive and equitable fiscal policies, as well as for the simplification of tax systems aimed at enhancing voluntary compliance and strengthening regional fiscal sustainability.

Figure 1 presents the conceptual research model developed to examine the behavioral determinants of tax morale among MSME taxpayers. Grounded in the Theory of Planned Behavior (TPB) and supported by prior empirical evidence, the model integrates three key structural factors: tax burden, system complexity, and perceived justice as predictors of tax morale. Based on this framework, the following hypotheses are formulated to test these relationships and to assess how external structural conditions influence voluntary compliance intentions among MSME actors in Pekanbaru.

H1: Tax burden negatively affects the tax morale of MSME actors.

H2: System complexity negatively affects the tax morale of MSME actors.

H3: Perceived justice positively affects the tax morale of MSME actors

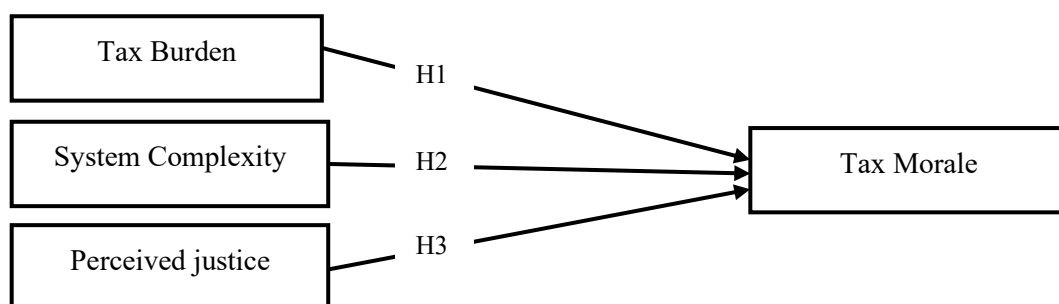


Figure 1. Research Model

METHOD

The quantitative method with a Structural Equation Modeling–Partial Least Squares (SEM-PLS) approach was employed in this study, as it allows the simultaneous examination of relationships among latent variables while accommodating constructs that cannot be directly observed, including the estimation of measurement errors. Data analysis was conducted using SmartPLS 4.0 software (Hair Jr et al., 2021; Sholihin & Ratmono, 2021). The study population comprised 26,684 MSME actors in Pekanbaru. The initial sample size was determined using the Slovin formula with a margin of error of 10%, resulting in 100 respondents. To further strengthen the justification, the Cochran (1977) formula was also considered. For populations exceeding 20,000, Cochran's formula recommends a minimum sample size of approximately 96 respondents at a 90% confidence level with a 10% margin of error. Therefore, the final sample of 100 respondents is both statistically adequate and methodologically acceptable for SEM-PLS analysis. This is particularly relevant since SEM-PLS is robust when applied to relatively small samples, provided that statistical power and model complexity are considered (Hair Jr et al., 2021). To ensure data quality and relevance, a purposive sampling technique was applied, with the following inclusion criteria: (1) MSME owners located in Pekanbaru, (2) officially registered taxpayers (verified through NPWP), and (3) businesses that had been operating for at least one year.

Primary data were collected through an electronic questionnaire, which provided direct insights into respondents' perceptions and experiences regarding tax burden, system complexity, perceived justice, and tax morale. The questionnaire was developed by adapting indicators that had been validated in previous studies to the Indonesian MSME context. Specifically, the tax burden variable was adopted from (Celikay, 2020; Fu & Zhang, 2025; Lima et al., 2025), system complexity from (Saptono et al., 2024; Vincent, 2021), tax justice from (Budiadnyani et al., 2023; Giray et al., 2015; Güzel et al., 2019), and tax morale from (Alexander & Balavac-Orlic, 2022; Castañeda, 2024). Each variable was operationalized using a five-point Likert scale (1–5). This study followed strict ethical standards: informed consent was obtained from all respondents prior to participation, anonymity and confidentiality were guaranteed, and the collected data were used solely for academic purposes. To clarify measurement, an operational definition table is provided, detailing the variables, dimensions, indicators, and measurement scales applied in this study as shown in Table 1.

Table 1. The definitions and measurements of the variables

Variable	Definition	Indicators	Question Items
Tax Burden	Perceptions of Tax Burden as a Business Barrier. Adapted from (Celikay, 2020; Fu & Zhang, 2025; Lima et al., 2025)	1. High tax burden perceived by businesses 2. Calls for reductions in tax rates 3. Negative impacts of excessive tax burden 4. Adverse effects of tax burden on business growth	1. High tax burdens are a major obstacle to the continuity of my business 2. If tax rates were reduced, I would be better able to develop my business 3. High tax burdens significantly reduce my business profits 4. High tax burdens make it difficult for me to expand my business 5. If taxes were lower, I would be more motivated to increase my business income 6. I feel that the current tax system is fair enough for MSMEs
System complexity	Perceived Difficulties in Understanding the Tax System Adapted from (Saptono et al., 2024; Vincent, 2021).	1. Technical complexity in tax legislation 2. Complicated details within tax laws 3. Difficulties in comprehending tax regulations 4. Technical adequacy and responsiveness of tax authorities 5. The necessity for professional tax expertise	1. The technical complexity of tax law makes it difficult for my business to fulfill its tax obligations. 2. The details in the Tax Law are too complicated for MSMEs to understand. 3. I have difficulty understanding the applicable tax regulations 4. I feel that the tax authorities do not provide sufficient technical guidance to facilitate an understanding of taxation 5. I need a tax expert to help with my business's tax compliance

Tax Justice	Perception That Tax Authorities Are Responsible for Promoting Procedural Fairness in Dealing with Taxpayers adapted from (Budiadnyani et al., 2023; Giray et al., 2015; Güzel et al., 2019)	1. Fairness based on taxpayers' ability to pay 2. Fair implementation of tax laws 3. Fairness in the distribution of the tax burden 4. Fair and respectful treatment by tax authorities	1. Tax auditors play an important role in providing education and understanding about taxes to MSMEs 2. The use of traditional channels, such as seminars and counseling is effective in increasing MSME understanding of taxes. 3. I feel that the government has performed its role well in providing tax education to MSMEs 4. Tax audits conducted by tax authorities also help improve my understanding of tax regulations. 5. I feel that tax audits are used more for educational purposes than as a law enforcement tool.
Tax Morale	Intrinsic Factors Motivating Taxpayers to Pay Taxes adapted from (Alexander & Balavac-Orlic, 2022; Castañeda, 2024)	1. Civic tax compliance as a personal responsibility 2. Perceived fairness of the tax system	1. I feel that paying taxes is a moral obligation as a good citizen 2. I pay taxes voluntarily 3. I report my taxes voluntarily 4. I feel guilty if I do not pay taxes in accordance with applicable regulations. 5. I feel that the current taxation system is applied fairly to all taxpayers 6. I believe that a fair tax system will increase tax compliance

To ensure the validity and reliability of the research instrument, the outer model was evaluated using Average Variance Extracted (AVE) and Composite Reliability (CR). The measurement model was tested for indicator reliability (factor loadings > 0.7), convergent validity (AVE > 0.5), and internal consistency reliability (CR > 0.7). Discriminant validity was assessed using the Fornell–Larcker criterion (Hair Jr et al., 2021). All constructs met the recommended thresholds, confirming that the measurement model is robust and acceptable. For hypothesis testing, a 5% significance level ($\alpha = 0.05$) was applied using a two-tailed test, consistent with the default procedure in SmartPLS, where the critical t-value exceeds 1.96. A two-tailed test was deemed appropriate, as this study considered the possibility of both positive and negative relationships, thereby ensuring methodological rigor and transparency. The results of these evaluations are presented in Tables 4 and 5.

RESULTS

To provide a comprehensive overview of the MSME actors who participated in this study, respondent characteristics were tabulated based on several demographic and business-related variables. This descriptive information serves as an important reference in interpreting the research findings, as it contextualizes the profiles of the participants. The results of the tabulation are presented in Table 2.

Table 2. Characteristics of Respondents

No	Characteristics of Respondents	Frequency	Percentage (%)
Gender			
1	Male	47	47%
2	Female	53	53%
Total		100	100
Education level			
1	Elementary school	12	12%
2	Junior high school	18	18%
3	Senior high school	49	49%
4	Diploma/ Bachelor	21	21%
Total		100	100
Length of Business			
1	< 1 Years	15	15%
2	1 – 5 Years	57	57%
3	> 5 Years	28	28%
Total		100	100

No	Characteristics of Respondents	Frequency	Percentage (%)
Age			
1	20-30 Years old	21	21%
2	31-40 Years old	32	32%
3	41-50 Years old	22	22%
4	≥ 55 Years old	25	25%
Total		100	100
Sector			
1.	Trade sector	64	64%
2.	Service sector	22	22%
3.	Manufacturing sector	6	6%
4.	Agriculture and Fishery Sector	8	8%
		100	100

Based on the tabulated characteristics, the majority of MSME respondents were female (53%), had completed senior high school as their highest level of education (49%), and had been operating their businesses for 1–5 years (57%). In terms of age, most respondents were within the productive age range of 31–40 years (32%). The trade sector represented the largest proportion of business types (64%), followed by services (22%), agriculture and fisheries (8%), and manufacturing (6%). Overall, these findings suggest that MSME actors in Pekanbaru are predominantly of productive age, possess a secondary education background, and are primarily engaged in the trade sector.

Following the demographic profiling, a descriptive statistical analysis was conducted to examine the overall trends in responses related to the study variables. This analysis offers insights into respondents' perceptions and attitudes regarding tax burden, system complexity, perceived justice, and tax morale. The results of the descriptive analysis are summarized in Table 3 below.

Table 3. Result of Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Tax burden (TB)	100	6,00	25,00	15,4300	4,08559
System complexity (SC)	100	6,00	25,00	18,7700	4,04983
Tax Justice (TJ)	100	5,00	25,00	16,8800	4,23854
Tax Morale (TM)	100	6,00	30,00	22,3700	4,61148

Referring to Table 3, the Tax Morale (TM) variable shows the highest average score of 22.37, reflecting that the majority of respondents demonstrate a relatively strong sense of tax morale. In contrast, the Tax Burden (TB) variable had the lowest mean score of 15.43, suggesting that the perceived tax burden is generally moderate to low. The System Complexity (SC) variable showed a mean score of 18.77, reflecting that respondents perceive the tax system as relatively complex. Meanwhile, the perception of Tax Justice (TJ) had a mean score of 16.88, implying that many MSME actors still perceive tax justice as suboptimal.

Considering the respondents' demographic profiles, predominantly with secondary education and engaged in the trading sector, it is plausible that they have a limited understanding of tax regulations and may not fully grasp the actual tax burden or the complexities of the system. Nevertheless, they demonstrate a strong moral commitment to fulfilling their tax obligations. Before proceeding to more in-depth analysis, the research instruments were subjected to validity and reliability testing to ensure that each indicator accurately and consistently measured its intended construct. The results of these tests are presented in Table 4 below.

Table 4. Convergent Validity, Reliability Test & Collinearity Test

Variable	Outer Loading	P value	Composite Reliability	Cronbach's Alpha	AVE	VIF
Tax burden	0,705 - 0,854	<0.001	0,893	0,858	0,626	2,058
System complexity	0,719 - 0,903	<0.001	0,921	0,892	0,702	1,089
Tax Justice	0,717 - 0,883	<0.001	0,915	0,883	0,685	3,254
Tax Morale	0,742 - 0,874	<0.001	0,910	0,880	0,628	-

The results presented in Table 4 demonstrate that all variable indicators have outer loading values greater than 0.70 and p-values below 0.001, confirming strong indicator validity. Furthermore, the CR values (ranging from 0.893 to 0.921) and Cronbach's Alpha coefficients (ranging from 0.858 to 0.892) establish that the research instruments exhibit high internal consistency and reliability. In addition, all AVE values exceed the minimum threshold of 0.50, thereby confirming convergent validity. With respect to collinearity, the VIF values for all constructs fall within the range of 1.089 to 3.254, well below the critical limit of 5.0. This indicates that multicollinearity is not a concern and that each construct contributes distinctive explanatory power without redundancy. Collectively, these findings affirm that the measurement instruments employed in this study are appropriate, consistent, and statistically robust for capturing MSME actors' perceptions of tax burden, system complexity, perceived tax justice, and tax morale.

In addition, discriminant validity was assessed using the Fornell-Larcker criterion. According to this criterion, a construct demonstrates satisfactory discriminant validity if the square root of its AVE is greater than its correlations with any other construct in the model (Hair Jr et al., 2021). As shown in Table 5, the diagonal values (representing the square roots of the AVE) for each construct exceed their corresponding inter-construct correlations. These results confirm that all constructs in the model meet the requirements for discriminant validity, thereby ensuring that each construct is empirically distinct.

Table 5. Discriminant Validity (Fornell-Larcker criterion)

	Tax Burden	System Complexity	Tax Justice	Tax Morale
Tax Burden	0,791			
System complexity	-0,144	0,838		
Tax Justice	0,735	-0,049	0,828	
Tax Morale	0,469	-0,385	0,644	0,792

After establishing both convergent and discriminant validity, the next step was to assess the structural model's explanatory and predictive power. This evaluation was carried out using the coefficient of determination (R^2), which indicates the extent to which the independent variables explain variance in the dependent variable, and the predictive relevance statistic (Q^2), which evaluates the model's ability to predict endogenous constructs. The outcomes of these assessments are presented in Table 6.

Table 6. Results of the Determination Test & Predictive Relevance (Q^2)

Structure	R Square	Adjusted R Square	Q^2
Tax Morale	0,544	0,530	0,605

The coefficient of determination was evaluated using the Adjusted R^2 . The obtained value of 0.530 indicates that 53% of the variance in tax morale is explained by tax burden, system complexity, and tax justice. In the context of this study, this suggests that while the model captures a substantial portion of the factors influencing tax morale, other variables beyond the scope of this analysis also play a role. Thus, although the explanatory power is moderate, future research is encouraged to incorporate additional determinants to provide a more comprehensive understanding of the drivers of tax morale. In terms of predictive relevance, the Q^2 value was 0.605, which exceeds the minimum threshold of 0 (Hair Jr et al., 2021) and is well above the 0.35 benchmark that indicates strong predictive capability. This demonstrates that the structural model not only explains historical variance but is also reliable in forecasting future outcomes. Overall, these results confirm that the research model is statistically robust, effectively identifying key determinants of MSME tax morale while leaving space for future studies to expand the explanatory framework.

In addition to R^2 and Q^2 , an effect size (f^2) test was conducted to assess the relative contribution of each exogenous variable to the endogenous construct. This test provides insight into the strength of the individual predictors in explaining tax morale. The calculated f^2 values, along with their interpretations, are summarized in Table 7.

Table 7. Effect Size

Variable	F ²	Description
Tax burden	0,002	Low
System complexity	0,096	Low
Tax Justice	0,184	Moderate

The results indicate that among the predictor variables, perceived tax justice exhibits the strongest effect size, categorized as moderate, underscoring its pivotal role in shaping tax morale. In contrast, tax burden and system complexity demonstrate only small effect sizes, suggesting that their individual contributions are relatively weaker when compared to tax justice.

Having evaluated the explanatory power (R^2), predictive relevance (Q^2), and effect sizes (f^2), this study proceeds to hypothesis testing. The results, summarized in Table 8, provide deeper insights into the relationships among the examined variables.

Table 8. Result of hypothesis test

Hypothesis	Variable Relationship	Path Coefficient	T statistic	P Values	Description	Decision
H1	TB → TM	-0,096	0,873	0,383	(-) not sign	Not Supported
H2	SC → TM	-0,365	6,201	0,000	(-) sign	Supported
H3	TJ → TM	0,697	7,172	0,000	(+) sign	Supported

The hypothesis testing results reveal important insights into the relationships between Tax Burden (TB), System Complexity (SC), Tax Justice (TJ), and Tax Morale (TM). First, Hypothesis 1 (H1) is Hypothesis (H1) Not Supported, with a path coefficient of -0.096 and a t-statistic of $0.873 < 1.96$, or a p-value of $0.383 > 0.05$. This suggests that although tax burden has a negative relationship with tax morale, the effect is statistically insignificant. Second, Hypothesis (H2) is supported with a path coefficient of -0.365 and t-statistic ($6,201 > t$ table ($1,96$) or P value ($0,000 < \text{Alpha}$ ($0,05$)). With a path coefficient of -0.365 and a t-statistic of $6.201 > 1.96$, or a p-value of $0.000 < 0.05$. This indicates that greater system complexity significantly reduces tax morale. Third, Hypothesis (H3) is supported with a path coefficient of 0.697 and a t-statistic ($7,172 > t$ table ($1,96$) or P value ($0,000 < \text{Alpha}$ ($0,05$)). With a path coefficient of 0.697 and a t-statistic of $7.172 > 1.96$, or a p-value of $0.000 < 0.05$, showing that perceptions of tax justice significantly increase tax morale. Overall, these findings highlight that system complexity and tax justice exert significant influences on tax morale, whereas tax burden does not demonstrate a statistically meaningful impact.

DISCUSSION

Hypothesis 1 (H1) aims to analyze the effect of Tax Burden (TB) on Tax Morale (TM). The analysis results show that TB negatively affects TM, but this effect is not significant. Therefore, although there is an indication that a higher TB may decrease TM, for the respondents in this study, this effect was not significant enough. In this study, the impact of TB on TM can be analyzed through the TPB framework (Ajzen, 1991). Although, theoretically, a high tax burden may decrease individuals' motivation to pay taxes, the study results indicate that the influence of TB on TM is not significant among SMEs in Pekanbaru. Among SME actors, perceptions of high tax burdens may reduce motivation for voluntary compliance (Alabi et al., 2024). Therefore, an accurate assessment of the TB and its effect on the economy is key in designing more effective and equitable tax policies (Opanasenko, 2024). This may be due to a lack of awareness of the direct impact of the TB on their welfare, which is included in the category of controlling factors in the theory. This condition indicates that there may be other, more influential factors that shape TM. According to Aktaş Güzel et al. (2019), TM varies depending on the cultural structure of society. Other studies highlight the importance of reducing tax burdens to encourage investment and economic participation, including from SMEs (Akhmadeev et al., 2016; Paientko & Oparin, 2020). Additionally, SMEs' perceptions of the tax amounts they must pay are often disproportionate to the benefits they perceive, which weakens their sense of fairness and fiscal responsibility (Bayissa, 2021; Faizal et al., 2017; Okafor, 2023). A heavy tax burden is suspected of

creating psychological resistance, directly affecting low tax morale. Furthermore, the demographic characteristics of SME respondents in Pekanbaru also play an important role in this result. Many respondents come from SMEs still in the development stage, and most of the entrepreneurs have limited education, which reflects a low understanding of taxation. A lack of knowledge about taxation influences tax morale (Cenvintius, 2024; Timothy & Abbas, 2021). Within this framework, enhancing education and deepening knowledge about taxation and its advantages for business growth could elevate tax morale, aligning with the TPB's emphasis on the role of awareness and perceived control in guiding intended behaviors. McGee et al., (2020) and Torgler et al., (2008) demonstrate that when tax rates are high, tax avoidance behavior appears more rational. Elevated tax burdens can deter businesses from fulfilling their tax duties and may even push them toward informal practices (Shepherd, 2019). On the other hand Alasfour et al., (2016) found that the tax burden does not exert a statistically significant influence on tax morale. Due to audit expenses and financial considerations, increased tax rates may not meaningfully alter taxpayers' moral commitment."

Furthermore, the insignificant effect of TB on TM in this study can be explained through the lens of the behavioral tax compliance theory (Kirchler, 2007; Torgler & Schneider, 2007), which emphasizes that tax compliance is not solely determined by rational cost-benefit calculations but is also shaped by psychological factors, perceptions of fairness, trust in authorities, and the socio-cultural environment. According to Kirchler, (2007), when taxpayers view the tax system as excessively demanding but do not perceive clear and fair benefits in return, this can trigger a crowding-out effect on motivation, where their intrinsic willingness to comply is eroded and replaced by reluctance.

The findings indicate that the tax burden has a negative but insignificant effect on the tax morale of MSMEs in Pekanbaru. This divergence can be explained by differences in context and levels of analysis. Macro-level and large-firm studies generally report clearer effects, such as in Russia, where fiscal policy influences investment structures (Akhmadeev et al., 2016), or in OECD countries, where tax-to-GDP ratios are shaped by aggregate economic variables (Celikay, 2020). Fu & Zhang, (2025) even demonstrate that in large firms, tax pressure stimulates R&D innovation and enhances Corporate Sustainability Performance, a mechanism less feasible for MSMEs with limited resources. Furthermore, in Ukraine, tax rate reductions did not automatically increase economic freedom due to slow institutional reforms (Paientko & Oparin, 2020), a condition also relevant to Indonesia, where administrative barriers and low public trust constrain the nominal impact of taxation (Judijanto, 2024). Measurement differences also matter: while other studies often rely on macro or objective indicators, this study focuses on MSME perceptions. As emphasized by (Opanasenko, 2024), this may explain why the tax burden is insignificant in this context. These comparisons enrich the theoretical contribution by showing that the effects of tax burden are highly contextual, varying across levels (MSMEs vs. large firms) and shaped by institutional conditions and perceptions of fairness. This underscores the need to extend the TPB framework by incorporating institutional and fairness-related factors to better explain tax behavior in developing countries (Ajzen, 1991; Kirchler, 2007).

Theoretically, these results reinforce the TPB (Ajzen, 1991), which emphasizes that behavior, including tax compliance, is influenced by attitudes, subjective norms, and perceived behavioral control. Within this framework, improving tax education and knowledge can enhance tax morale by strengthening perceived control and raising awareness of the benefits of taxation for business development (Buzohera, 2025). Furthermore, through the lens of the Behavioral Tax Compliance Theory (Kirchler, 2007; Torgler & Schneider, 2007), these findings affirm that tax compliance is not solely driven by rational cost-benefit calculations but is also shaped by psychological factors, perceptions of fairness, trust in authorities, and the socio-cultural environment. Merely adjusting tax rates without implementing a fair system is insufficient to foster voluntary compliance (Opanasenko, 2024). Clear and transparent information regarding the allocation of tax revenues also plays a crucial role in shaping taxpayers' positive perceptions and ultimately influences tax compliance (Ajzen, 1991).

In this context, the lack of a significant impact of Tax Burden may indicate that SME taxpayers in Pekanbaru are more strongly influenced by other determinants, such as perceived justice and system complexity, rather than by nominal tax rates alone. Changing rates without implementing a fair system is not sufficient to encourage voluntary tax compliance (Opanasenko, 2024). From a policy perspective,

these findings suggest that efforts to increase tax morale among SMEs should not rely solely on lowering tax rates but should be integrated with measures that strengthen perceptions of fairness, improve tax education, and simplify administrative processes (Fu & Zhang, 2025; Soufiene et al., 2024). Clear information on tax allocation helps align taxpayers' perceptions and has implications for tax compliance, consistent with the TPB (Ajzen, 1991). From a practical perspective, enhancing tax morale among MSMEs should focus on policies that not only adjust tax rates but also ensure fairness, transparency, and administrative simplicity. Tax authorities can strengthen taxpayer trust by providing easily accessible consultation services, simplifying reporting procedures, and delivering clear information on the allocation of tax revenues. By understanding the link between taxes paid and the benefits received, MSME actors are more likely to comply voluntarily. A holistic approach that combines reasonable tax rates, fair implementation, effective communication, and capacity-building support will foster sustainable tax morale while strengthening the local fiscal base.

Hypothesis 2 (H2) was proposed to test the effect of System Complexity on TM. The testing results show that H2 is supported, indicating that System Complexity has a negative and significant effect on Tax Morale. Put simply, when SME actors perceive the tax system as increasingly complicated, their tax morale tends to decline. The complexity of the tax system plays a pivotal role in shaping taxpayer perceptions, particularly in relation to compliance behavior and willingness to meet tax obligations (Lima et al., 2025; Saptono et al., 2024). A system that is difficult to understand, administratively burdensome, and unfriendly to small business owners tends to create both mental and procedural barriers that weaken taxpayers' readiness and drive to fulfill their duties voluntarily (Soufiene et al., 2024). These findings emphasize the need for a more straightforward tax system, allowing SMEs to better grasp and fulfill their responsibilities while enhancing their confidence and willingness to comply on their own initiative (Widjaja & Michael, 2024). This result can also be explained through the TPB (Ajzen, 1991). In this framework, a complicated tax system undermines perceived behavioral control, thereby reducing SME owners' confidence in their capacity to understand and manage tax obligations (Michael et al., 2025; Michael & Widjaja, 2024). When the tax process is viewed as overly complex, business owners may experience a lack of mastery over it, which diminishes their willingness to comply voluntarily. Consequently, greater system complexity is likely to foster negative perceptions, leaving taxpayers feeling overwhelmed and unable to manage their obligations. This dynamic directly weakens Tax Morale, as SME owners become less driven to meet their tax duties. (Faisol & Norsain, 2024). In practice, SMEs value simplicity and stability in tax policy (Le et al., 2020). Business owners expect new tax rules to be clearly communicated and regularly updated, which can strengthen tax morale by allowing them to independently determine liabilities with greater ease (Rodríguez, 2015; Taing & Chang, 2021). SMEs will further benefit from simplified administration principles (Agusti & Rahman, 2023). Although some studies indicate that administrative streamlining through digital solutions does not always significantly increase compliance (Belahouaoui & Attak, 2024; Cerka et al., 2024; Haggai & Odunga, 2025; Huang, 2024), proactive measures remain necessary. Companies should adopt preventive strategies, with commissioners providing guidance to maintain sound tax practices and safeguard reputation (Diningrum & Kurniawati, 2024). In sum, system complexity negatively affects tax morale because it creates administrative barriers and uncertainty, reducing SMEs' willingness to comply voluntarily.

This finding is consistent with the Behavioral Tax Compliance Theory, which emphasizes that taxpayers' willingness to comply depends not only on rational cost–benefit considerations but also on their perceptions of fairness, trust in authorities, and the ease of fulfilling their tax duties (Kirchler, 2007; Torgler & Schneider, 2007). A complex tax system can erode perceived control and diminish trust in the system, thereby reducing taxpayers' intrinsic motivation to comply (Castañeda, 2024; Saptono et al., 2024). Theoretically, these results suggest that system complexity undermines the tax morale of SMEs by weakening perceived behavioral control, as explained in the Theory of Planned Behavior (Ajzen, 1991). Complicated procedures diminish business owners' confidence in fulfilling their tax obligations, lowering their willingness to comply voluntarily. Consistent with the Behavioral Tax Compliance Theory (Kirchler, 2007; Torgler & Schneider, 2007), a complex system also erodes perceptions of fairness and trust in tax authorities. Therefore, simplifying administrative procedures,

enhancing tax literacy, and ensuring clear policy communication are not only practically beneficial but also crucial in strengthening the psychological and social factors that foster tax compliance.

Policy implications derived from this result suggest that tax authorities should prioritize simplification and clarity in tax administration for SMEs (Agusti & Rahman, 2023; Kassa, 2021; Soufiene et al., 2024; Widjaja & Michael, 2024). Reducing unnecessary complexity, ensuring transparent communication of regulations, and providing user-friendly digital tools can enhance perceived behavioral control and, in turn, strengthen tax morale. Moreover, reinforcing perceived justice through fair treatment, transparent procedures, and proportional tax rules is essential for supporting compliance intentions and addressing psychological barriers (Aktaş Güzel et al., 2019; Budiadnyani et al., 2023; Güzel et al., 2019). Integrating administrative simplification with fairness-oriented reforms will better align taxpayer attitudes with voluntary compliance objectives, thereby fostering a more resilient and sustainable local tax base.

Hypothesis 3 (H3) was proposed to test the effect of Tax Justice on Tax Morale among SMEs in Pekanbaru. The test results show that Hypothesis (H3) is supported, indicating that Tax Justice has a positive and significant effect on Tax Morale. The higher the perception of fairness in the tax system, the stronger the tax morale. This finding suggests that, to enhance Tax Morale, the government should establish a fair and non-discriminatory tax system that fosters trust among business owners. Previous studies support this view, showing that perceptions of tax fairness are a key factor in shaping taxpayers' attitudes and compliance behavior (Alexander & Balavac-Orlic, (2022), Castañeda, (2024) and Günay, (2025) perceptions of tax fairness are an important factor in shaping taxpayers' attitudes and behaviors, especially regarding voluntary compliance (Budiadnyani et al., 2023; Timothy & Abbas, 2021). Within the TPB framework, the perception of tax fairness significantly influences how individuals view their tax responsibilities. Within the TPB framework, perceptions of fairness significantly influence how individuals interpret their tax responsibilities. When taxpayers regard the tax system as fair, transparent, and balanced, they develop a positive attitude toward fulfilling their obligations and are more motivated to comply voluntarily. Such perceptions strengthen taxpayers' belief that compliance is appropriate and justified, thereby enhancing their tax morale.

Most MSME respondents in Pekanbaru are small and micro entrepreneurs with diverse educational backgrounds and varying levels of tax knowledge. This group is highly sensitive to perceived systemic injustice (Judijanto, 2024), making fairness a critical determinant of tax morale and attitudes (Budiadnyani et al., 2023; Timothy & Abbas, 2021). Taxpayers who perceive the tax system as fair are more likely to comply voluntarily and less inclined to engage in tax avoidance (Castañeda, 2024; Giray et al., 2015). However, the low level of public trust in tax management reflects a prevailing perception of unfairness (Annur, 2023), even though empirical evidence shows that trust significantly improves compliance through fairness perceptions (Aktaş Güzel et al., 2019). In the Indonesian context, equitable treatment by tax authorities has been proven to encourage voluntary compliance (Agusti & Rahman, 2023). Accordingly, a fair tax system directly enhances tax morale and strengthens fiscal compliance, while also serving as an effective tool to reduce tax evasion among business actors (Alabi et al., 2024; Alexander & Balavac-Orlic, 2022; Horodnic, 2018; Mickiewicz et al., 2019). These findings emphasize the importance of building trust through fairness, particularly for MSMEs that frequently face constraints in resources and access to information.

These findings are highly consistent with the behavioral tax compliance theory, which emphasizes that tax morale and the willingness to comply voluntarily are shaped by psychological and social dimensions, particularly perceptions of fairness and trust in tax authorities (Kirchler, 2007; Torgler & Schneider, 2007). When taxpayers perceive the tax system as fair, open, and balanced, they are more likely to adopt constructive attitudes, regard paying taxes as a social responsibility, and demonstrate compliant behavior (Güzel et al., 2019; Okafor, 2023). This study affirms that the perception of fairness is a crucial determinant of tax morale among SMEs, who are especially vulnerable to distrust when they perceive bias or procedural injustice (Budiadnyani et al., 2023; Judijanto, 2024). This reinforces the Theory of Planned Behavior's assertion that attitudes toward compliance are strengthened by fair treatment, which in turn enhances the intention to comply (Ajzen, 1991). Theoretically, this study contributes by demonstrating that tax fairness perception is a pivotal

psychological factor connecting the Behavioral Tax Compliance Theory and the TPB within the SME context. Fair and transparent treatment by tax authorities not only enhances trust but also strengthens positive attitudes toward compliance, thereby increasing voluntary tax morale. This integration highlights that fostering fairness is not merely an ethical obligation but also a fundamental mechanism driving tax morale and compliance behavior.

The policy implication is to improve tax morale and reduce evasion; therefore, tax authorities should implement reforms that enhance procedural justice and transparency, especially for SMEs with limited resources and knowledge (Agusti & Rahman, 2023). Simplifying the tax system while ensuring fairness can build trust, close compliance gaps, and foster sustainable revenue growth (Horodnic, 2018; Mickiewicz et al., 2019). By combining fair tax practices with reduced system complexity, authorities can strengthen perceived behavioral control and positive attitudes, aligning with both the TPB and behavioral tax compliance perspectives, and providing a robust foundation for modern, trust-based tax administration. Practically, this study highlights that integrating fairness with simplified tax procedures is a strategic approach to strengthen SMEs' perceived control, build trust, and encourage voluntary compliance.

To strengthen tax morale and reduce evasion among SMEs, the DJP should adopt a dual strategy that combines procedural simplification with fairness reforms. First, simplification can be achieved by developing sector-specific tax guidelines for SMEs, expanding mobile-based e-filing platforms, and establishing dedicated SME tax service units to reduce administrative burdens. Second, fairness should be reinforced by ensuring transparent audit mechanisms, applying proportional sanctions that differentiate between errors and intentional evasion, and providing public reporting on how tax revenues are allocated to community development. These measures directly enhance perceived behavioral control and fairness, in line with the TPB, thereby improving voluntary compliance. For the DJP, such reforms are not merely administrative adjustments but strategic investments in building long-term trust and sustaining the local tax base.

CONCLUSION

This research provides empirical evidence that perceived tax fairness has a positive and significant effect on tax morale, system complexity has a significant negative effect, while tax burden does not show a notable impact on the tax morale of MSME taxpayers in Pekanbaru. Theoretically, these findings make an important contribution by extending the TPB in the tax context. Specifically, the study demonstrates that external structural factors, such as system complexity and perceived fairness, should be integrated alongside internal constructs, attitudes, subjective norms, and perceived behavioral control to more accurately capture compliance behavior in the MSME sector of developing economies. This extension advances the behavioral tax compliance literature by showing that fairness and clarity in the tax system directly shape perceived behavioral control and attitudes, thereby influencing voluntary compliance intentions.

Practically, the study provides direct policy implications for the DJP and other regulatory authorities. It demonstrates that enhancing tax morale among MSMEs requires reforms that integrate procedural fairness with administrative simplification. Concretely, this involves developing sector-specific tax guidelines, expanding user-friendly digital platforms, ensuring transparent audit procedures, applying proportional sanctions, and implementing targeted tax literacy programs tailored to SMEs' characteristics. These strategies not only reduce administrative burdens but also strengthen trust, thereby fostering a more sustainable and resilient local tax base.

In terms of contribution, this research bridges the gap between theory and practice: it enriches the TPB by incorporating fairness and institutional complexity into the behavioral model and provides policymakers with evidence-based strategies to enhance voluntary tax compliance. The study's limitations include its geographic scope, being restricted to MSMEs in Pekanbaru, and its reliance on self-reported data. Future research should expand the sample across multiple regions and sectors, employ longitudinal or experimental designs to test interventions, and investigate additional factors such as digitalization readiness, perceptions of audits, and institutional trust to further deepen the understanding of tax morale dynamics.

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