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Rwabunywenge, Menchidia; Nchimbi, Mariam; Suluo, Said Juma

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Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
Düsternbrooker Weg 120
24105 Kiel (Germany)
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)
<https://www.zbw.eu/econis-archiv/>

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The Influence of Provision of Public Services on Tax Compliance in SMEs: Mediating Role of Tax Morale

Menchidia Rwabunywenge¹

Assistant Lecturer, Department of Economics and Tax Management, The Institute of Finance Management, Dar es Salaam, Tanzania

Mariam Nchimbi

Senior Lecturer, Department of Accounting, University of Dar es Salaam, Dar es Salaam, Tanzania

Said Juma Suluo

Senior Lecturer, Department of Accounting, University of Dar es Salaam, Dar es Salaam, Tanzania

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Abstract

This study investigates the relationship between the provision of public services, tax morale, and tax compliance in small and medium enterprises (SMEs) in Tanzania. A cross-sectional research design was employed, using a sample of 479 SMEs from Dar es Salaam, Tanzania, with data collected through self-administered questionnaires. Structural Equation Modeling (SEM) was used to test the hypotheses. The results indicate that the provision of public services has a significant positive effect on tax compliance, with tax morale acting as a partial mediator in this relationship. This suggests that taxpayers' perceptions of the quality of public services influence their intrinsic motivation (tax morale) to comply with tax regulations, which ultimately enhances tax compliance. The study contributes to the theoretical understanding of the factors that drive tax compliance by incorporating tax morale as a key mediator. Policymakers are encouraged to focus on improving public service delivery and fostering tax morale to enhance compliance rates.

Keywords: Tax compliance, Provision of public services, Tax morale, Small and Medium Enterprises, Tanzania.

¹ Corresponding Author: menchidiar@gmail.com

Introduction

Tax and non-tax revenues are the primary sources of government income, essential for financing public goods and services such as education, healthcare, and infrastructure (Slemrod & Bakija, 2017; Yurdadoğ et al., 2022). An effective tax system underpins economic growth, reduces income inequality, and maintains social stability (Piketty & Saez, 2014; Stiglitz, 2015). High levels of tax compliance are critical for sustaining revenue streams, enabling governments to meet their financial objectives and achieve development goals (Cummings et al., 2009; Kirchler et al., 2008).

Despite its importance, tax compliance remains a significant challenge worldwide, particularly in developing countries (Gebresilassie et al., 2024; Prichard et al., 2014). Globally, an estimated \$427 billion is lost annually to tax non-compliance (Michalos, 2023). In Africa, the issue is particularly acute, with annual losses of \$89 billion, representing 3.7% of the continent's GDP (Serra, 2024). Africa's average tax-to-GDP ratio of 16.6% lags behind Europe (41.1%), Asia and the Pacific (21%), and Latin America and the Caribbean (22.9%) (OECD, 2020). This revenue shortfall exacerbates socio-economic inequalities in health, education, and social protection (Higgins & Lustig, 2018; Stromquist, 2019). Tanzania exemplifies these challenges, with a tax-to-GDP ratio of around 15% in 2021, below the sub-Saharan African average of 17% (Balima & Sokolova, 2021; Edwards Jr et al., 2024). Furthermore, Tanzania loses an estimated TZS 1.29 trillion (approximately \$558 million) annually to tax evasion, tax avoidance, and illicit financial flows (Action Aid Tanzania, 2017).

The consequences of tax non-compliance are profound, undermining government capacity to finance public services and address socio-economic challenges such as poverty and inequality (Abeywickrama et al., 2024). It also creates budget shortfalls, constrains public investment, and erodes government legitimacy (Besley & Persson, 2014; Dibia & Onwuchekwa, 2019). Research highlights various economic and non-economic factors influencing tax compliance, with growing attention on the role of public service provision as a critical driver, particularly for small and medium enterprises (SMEs).

SMEs play a pivotal role in global economies, contributing 60–70% of employment and 33% of GDP in developing economies (Qalati et al., 2021). In Tanzania, SMEs account for over 3 million enterprises, contributing 27% of GDP (Kazimoto et al., 2014; Kikwete, 2014). Despite their economic significance, SMEs exhibit high levels of tax non-compliance. The Tanzania Revenue Authority (TRA) collects less than 30% of tax revenue from SMEs, even though they constitute 90% of all taxpayers (Mkenda et al., 2024). This highlights the need for focused research on the unique factors influencing tax compliance in the SME sector, as insights from studies on large taxpayers are often inapplicable due to differences in size, financial conditions, and compliance behavior (Kirchler, 2007).

Adequate tax revenue is essential for achieving national and regional development goals, such as Tanzania's Development Vision (TDV) 2025 and Africa's Agenda 2063, which aim to foster shared prosperity and reduce aid dependency (Bexell & Jönsson, 2017; Union, 2015). Research on the mechanisms that enhance SME tax compliance is vital for realizing these objectives. Among the factors influencing tax compliance, tax morale has emerged as a key mediator, reflecting citizens' trust in government and their willingness to comply with tax obligations (S. Z. A. Bakar et al., 2023; Yuesti et al., 2019). Studies confirm that the provision

of public services significantly influences tax morale (Tambun & Haryati, 2022), which, in turn, affects tax compliance (Chong & Arunachalam, 2018; Kaulu, 2022).

However, a critical research gap exists regarding how tax morale mediates the relationship between public service provision and tax compliance among SMEs. Existing studies have not adequately explored this mechanism, particularly in the Tanzanian context. Addressing this gap, the present study aims to investigate the mediating role of tax morale in the relationship between public service provision and tax compliance among SMEs in Tanzania. By focusing on this unexplored area, the study seeks to provide actionable insights for policymakers to enhance tax compliance and, ultimately, revenue generation in Tanzania.

Literature

Provision of Public Goods and Tax Compliance

Tax compliance refers to taxpayers' voluntary fulfillment of their tax obligations, without the need for enforcement mechanisms such as audits, investigations, or penalties (Anto et al., 2021). It includes two primary categories: formal compliance and material compliance. Formal compliance pertains to adherence to procedural tax requirements, such as timely filing of tax returns and payment of taxes. Material compliance involves the substantive fulfillment of tax obligations, including accurate reporting and payment of the correct amount of tax. Tax compliance remains a critical global issue, as it directly affects the revenue collection capabilities of tax authorities (Slemrod, 2024).

Public service, defined as services provided by the government to individuals or communities, plays a significant role in influencing tax compliance behavior (Denhardt & Denhardt, 2000). The aim of public service delivery is to ensure community satisfaction (Tambun & Haryati, 2022). Taxpayers, particularly those making substantial contributions, often scrutinize how the government utilizes tax revenue. Studies show that taxpayers' perceptions of government spending heavily influence their compliance behavior. For instance, effective and transparent use of tax revenue for essential services such as education, health, and infrastructure is linked to increased tax compliance (Kararach et al., 2017; Tambun & Haryati, 2022). On the other hand, mismanagement or a lack of tangible benefits from public spending can erode trust and reduce compliance.

The connection between the perceived quality of public services and tax compliance can be explained by Fiscal Exchange Theory. Rooted in economic deterrence and social psychology models (Bello & Danjuma, 2014; McKerchar & Evans, 2009), the theory is based on a social, relational, or psychological contract between the government and taxpayers (Fjeldstad et al., 2012). It asserts that citizens are more likely to voluntarily comply with tax laws when they perceive the quality of public goods and services provided by the government to be satisfactory (Ogusu & Sila, 2019). The perception of fiscal exchange plays a key role in promoting tax compliance (Lubawa et al., 2024).

Empirical studies suggest that when taxpayers perceive a low conversion rate from taxes paid to public services delivered, they may feel the government has failed to fulfill its obligations under this implicit contract, leading to a decline in voluntary tax compliance (Kirchler, 2007). According to the Fiscal Exchange Theory, the way the government allocates its expenditures can motivate tax compliance by providing high-quality public goods and services that are accessible to citizens (Kiow et al., 2017).

This theory is particularly relevant to the current study, as it explains the link between the provision of public services and tax compliance. The OECD (2007) asserts that delivering quality public goods and services strengthens taxpayers' willingness to voluntarily comply with tax rules and regulations, thereby improving overall tax compliance levels. Additionally, the theory emphasizes the importance of transparency, accountability, and reciprocity, suggesting that a perceived lack of these elements may undermine taxpayers' willingness to pay taxes. By applying the Fiscal Exchange Theory, this study aims to explore how the provision of public services influences tax compliance, offering insights into the mechanisms that strengthen the social contract between governments and taxpayers.

Empirical research presents mixed findings regarding the relationship between public service provision and tax compliance. Ahsan et al. (2024) observed that investments in public roads positively impact compliance, while spending on education showed a negative effect. Carrillo et al. (2021) reported a negative relationship between public goods provision and compliance, while Gangl and Torgler (2020) found that positive experiences with public services enhance compliance. Similarly, Ogbomah and Appah (2024) highlighted the importance of quality governance in delivering essential public goods to foster compliance. Hossain et al. (2024) supported these findings, demonstrating a significant positive relationship between perceptions of government spending and tax compliance. However, a study conducted in Mauritius revealed no significant impact of government spending on compliance behavior. Despite these varied findings, this study hypothesizes that the provision of public services by the government positively affects tax compliance in line with Fiscal Exchange Theory.

H1: Provision of public services positively affects tax compliance.

Provision of Public Services, Tax Morale and Tax Compliance

Tax morale refers to the intrinsic motivation to comply with tax obligations, driven by a sense of contributing to the provision of public goods (Chrissanjaya, 2018). Enhancing tax morale is essential for increasing tax compliance, as it fosters a sense of social responsibility among taxpayers. When governments provide quality public services, taxpayers perceive their contributions as part of a social contract, where tax payments are reciprocated with tangible benefits from the state (Tambun & Haryati, 2022). This perception strengthens community satisfaction with the taxes paid and boosts morale.

The Theory of Planned Behavior (TPB) is a widely recognized psychological framework that explains the relationship between attitudes, intentions, and behaviors. It posits that an individual's behavior is influenced by three key factors: attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). Attitudes refer to the individual's evaluation of the behavior, subjective norms involve perceived social pressure to perform or not perform the behavior, and perceived behavioral control represents the perceived ease or difficulty of performing the behavior (Ajzen, 1991; Fishbein & Ajzen, 2010). These elements collectively shape an individual's intention to engage in a behavior, which, in turn, directly influences the behavior itself. TPB has been extensively applied in studies related to tax compliance, providing insights into how taxpayers' intentions and behaviors are shaped by their perceptions, social influences, and ability to comply (Bobek et al., 2007).

Provision of Public Services and Tax Morale

In this study, TPB provides a basis for hypothesizing the influence of perceived quality of public service provision on tax morale. Tax morale, reflecting taxpayers' intrinsic motivation

to comply, can be conceptualized as a behavioral intention influenced by attitudes toward government service provision and the perceived fairness of fiscal exchanges (Torgler, 2007). When taxpayers perceive high-quality public services, their attitudes toward taxation improve, positively influencing their tax morale.

Research on the relationship between public service provision and tax morale has yielded mixed findings. For example, Tjondro (2018) found a negative relationship, suggesting that public service provision may not always align with taxpayers' expectations, potentially diminishing morale. Conversely, Lubawa et al. (2024) emphasized that satisfaction with public services plays a crucial role in increasing tax morale. Given these inconsistencies, this study hypothesizes that the provision of public services positively affects tax morale in line with TPB.

H2: Provision of public services positively affects tax morale.

Tax Morale and Tax Compliance

The Theory of Planned Behavior also provides a theoretical basis to suggest that heightened tax morale may strengthen taxpayers' compliance with tax regulations (Chong & Arunachalam, 2018). This increased intrinsic motivation, often driven by moral ideals or religious convictions, enhances willingness to fulfill tax obligations. Empirical evidence supports this notion, demonstrating that higher tax morale is associated with improved tax compliance outcomes.

Research indicates that individuals with low levels of understanding and empathy exhibit lower tax morale and are more prone to non-compliance (Gangl & Torgler, 2020). On the other hand, Campos-Vazquez and Restrepo-Oyola (2024) found that intrinsic motivation to pay taxes persists regardless of government spending or tax policies. Chong and Arunachalam (2018) further concluded that taxpayers with high tax morale display a stronger tendency toward compliance, a finding consistent with Taing and Chang (2021), who emphasized the positive effect of increased tax morale on compliance intentions. Tax morale reflects the influence of values, social norms, and attitudes on taxpayers' behavior, varying significantly across cultures and countries (Hofmann et al., 2017). Consistently, Bakar et al. (2023) found that higher tax morale correlates with higher tax compliance. In line with the Theory of Planned Behaviour, this study thus hypothesizes that:

H3: Tax morale positively influences tax compliance.

Mediating Role of Tax Morale

This study leverages the Theory of Planned Behavior (TPB) to hypothesize the mediating role of tax morale in the relationship between perceived quality of public service provision and tax compliance. Tax morale, defined as the intrinsic motivation to comply with tax obligations, is influenced by attitudes toward government service provision and perceptions of fairness in fiscal exchanges (Torgler, 2007). High-quality public services enhance taxpayers' attitudes toward taxation, fostering a stronger sense of tax morale. This increased tax morale subsequently strengthens taxpayers' intentions to comply with tax regulations (Chong & Arunachalam, 2018). Integrating TPB, the study hypothesizes that tax morale serves as a crucial mediator, linking perceptions of public service quality to compliance behavior and enriching our understanding of the psychological mechanisms underlying tax compliance.

Tax morale represents a moral obligation to contribute to society through tax payments (Rodriguez-Justicia & Theilen, 2018). It explains compliance behavior beyond external deterrence factors, reflecting an individual's attitudes and internal motivations rather than their external actions (Dwenger et al., 2016). The norms model further supports this role, positing that taxpayers are driven to fulfill their tax obligations by adhering to social or personal norms (Cukai & Cukai, 2023). Consequently, tax morale functions as a mediator, connecting the provision of public services with tax compliance (Bakar et al., 2023).

Fair treatment and satisfaction with government-provided services significantly enhance taxpayers' compliance (Nguvava & Sangar, 2024). This suggests that the indirect relationship between public service provision and tax compliance is rooted in tax morale. Previous studies have established connections between public service provision and tax morale (Tambun & Haryati, 2022; Tjondro & Olivia, 2018) as well as tax morale and tax compliance (Mat Jusoh et al., 2021; Sugianto et al., 2022). However, no prior research has examined tax morale as a mediator in the link between public service provision and tax compliance among SMEs. Thus, the study proposes the following hypothesis:

H4: Tax morale mediates the relationship between public service provision and tax compliance.

Methodology

Data

To examine the causal relationships among public service provision, tax morale, and tax compliance, this study adopted an explanatory cross-sectional research design. A cross-sectional approach was selected due to time constraints, as data were collected at a single point in time.

The target population comprised 3,000,000 SMEs in Tanzania, as reported by Badamasi and Gbolagade and Mang'ana et al. (2023). Using Yamane's formula with a 95% confidence level and a 20% buffer for nonresponse, a sample size of 479 respondents was determined (Yamane, 1973). Convenience sampling was employed to gather responses based on participants' availability and willingness. This method was chosen for its practicality in accessing a diverse range of SME taxpayers. A spreadsheet was used to randomly generate and count respondents from the sampling frame of selected SMEs.

Data collection occurred between July and December 2023 through a self-administered questionnaire using a drop-off and pick-up method. This approach was selected for its ability to save time and achieve reasonable response rates (Yurdadoğ et al., 2022). The questionnaire was developed in English and translated into Swahili to cater to both language speakers. Self-reported measurements were utilized to capture taxpayers' perceptions effectively. To minimize bias, anonymity was assured, item clarity was prioritized, and the study's purpose and instructions were clearly communicated.

Of the 479 distributed questionnaires, 407 were returned (85%), with 20 deemed invalid, resulting in 387 valid responses for analysis. Descriptive statistics were used to analyze respondent characteristics through frequency and percentage distributions. To test the hypotheses and examine relationships among study variables, PLS-SEM was employed using Smart PLS 4 software. This method was chosen for its ability to analyze predictive models and test theoretically grounded relationships effectively (Hair Jr. et al., 2021). Although PLS-

SEM does not assess model fit, its predictive strength made it suitable for this study's objectives.

Measures

The measurement variables—provision of public services, tax morale, and tax compliance—were derived from prior research and conceptualized as reflective latent variables. These variables were operationalized into quantifiable items, making them suitable for data collection. The items for all variables were assessed on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Each construct was evaluated using multi-item indicators based on existing literature. The provision of public services was conceptualized as the taxpayers' satisfaction with the quality of public service provision in Tanzania. It was measured using the modified measures adopted from Sandholt & Vicente (2024). Tax morale was conceptualized as the intrinsic motivation of citizens to comply with tax obligations without the need for coercion. Tax morale was measured using modified measurement scales adopted from Barone and Mocetti (2011). Tax compliance was defined as the extent to which taxpayers adhere to or fail to meet tax obligations (Nartey, 2023). Modified measurement scales developed by Kircher and Wahl (2010) was used to measure tax compliance. The items for these variables were reviewed and discussed with academicians, tax consultants, and tax officials from the Tanzania Revenue Authority (TRA) to ensure internal consistency, relevance, and consensus regarding the items included in the final instrument, thereby ensuring validity. Additionally, the validity and reliability of the measurement model were statistically tested.

Results

Respondents' profile

According to this study, male respondents were 206 (53.2%) compared to 181 (46.8) female respondents. This means that many SMEs are either owned or managed by men. Respondents in the study ranged from the following age groups: 18-35 years were represented by 173 (44.7%), 36-45 years by 115 (29.7%), 46-59 years by 86 (22.2%), while 60 years and above were represented by 13 (3.4%). These results suggest that young people are mostly involved in running businesses. Regarding the education levels, respondents with doctoral degree were 5(1.3%), 76 (19.6%) had a master's degree, 115 (29.7%) had a bachelor's degree, 82(21.2%) had an ordinary diploma, 93(24%) had certificate while 16(4.1%) were form four leavers. The findings also indicate that 202 (52.2) were engaged in trade, 44(11.4%) were engaged in manufacturing, while 141(36.4%) were engaged in providing services. Regarding registration status, 230(59.4%) were sole proprietors with business names, 65(16.8 %) were sole proprietor with no business name registration while 92(23.8%) had certificate of incorporation as a company limited. Experience in the industry, less than one year 13(13.4%), 1-5 years were 180 (46.5%), 6-10 years 118(30.5%), 11-15years 50(12.9%), 16-20 years 13(3.4) while more than 20 years were 13(3.4).

Hypothesis Testing Results

Subsequently, the study structural model analysis was performed using SmartPLS 4 and carried out parameter estimation using the path weighting technique. Before analyzing the structural (inner) model, the measurement (outer) model was evaluated. The relevance of the

path coefficients was tested using the bootstrapping approach with 5,000 replications (Hair et al., 2017).

Measurement Model Evaluation Result

This study measurement model involved provision of public services, tax morale and tax compliance variables. Each variable has multiple indicators that were reflectively measured. According to Hair, Hult, Ringle, and Sarstedt (2021)'s guidelines, composite reliability (internal consistency) and the indicators' outer loading (indicator reliability) were employed to examine the study's reliability. The Heterotrait-Monotrait (HTMT) ratio and the average value extracted (AVE) were utilised to measure discriminant and convergent validity, respectively. When a variable's indicator has an outer loading of at least 0.70, it is considered that the indicator's reliability is satisfactory. Indicators with outer loadings between 0.40 and 0.70 are thus only considered for removal if doing so improves composite reliability and raises the average value extracted over the suggested threshold value for AVE, which is 0.5 (Hair et al., 2019). The 20 reflecting indicators used in this study fulfilled the criterion (Table 1). This means all the indicators' outer loadings were above 0.7.

Internal consistency was evaluated using composite reliability. This is because composite reliability is more reliable and has higher coefficients than Cronbach's alpha (Sarstedt et al., 2014). A composite reliability rating of over 0.70 indicates that the instrument has an internal consistency (Ringle et al., 2020; Ringle et al., 2023). The findings in Table 1 suggest that all the constructs exceeded the minimal necessary threshold of composite reliability, demonstrating construct measures' internal consistency reliability. Convergent validity was tested using AVE with minimum threshold values of 0.50 (Hair Jr et al., 2017). Given that all AVE values for the variables are over the minimum threshold value, and the findings constitute vital evidence for the measurement model's convergent validity.

Furthermore, the discriminant validity of the constructs was evaluated using the Heterotrait-Monotrait ratio of correlation (HTMT). Heterotrait-Monotrait (HTMT) ratio criterion is superior to the traditional approaches for measuring discriminant validity because both the Fornell-Larcker criterion and the assessment of the cross-loadings criterion were insufficiently sensitive to detect discriminant validity problems (Ab Hamid et al., 2017; Henseler et al., 2015). According to (Henseler et al., 2015), HTMT is the mean value of item correlations across constructs in proportion to the mean of average correlations for the items measuring the same construct. According to (Voorhees et al., 2016), the primary criterion for the HTMT test is whether the HTMT ratio approaches 1.0, meaning that values that are close to or more than 1.0 would be considered violations of discriminant validity. Although the exact HTMT ratio that would result in a discriminant validity violation is unclear, however, 0.85 and 0.90 have been proposed as helpful starting points (Henseler et al., 2015). As shown in Table 2, all HTMT values in this investigation were less than 0.90, suggesting their acceptability and applicability and proving discriminant validity.

The discriminant validity of this study was examined using the Heterotrait-Monotrait (HTMT) ratio of correlation. HTMT is a more conservative measure than conventional Fornell-Lacker and cross-loading criteria (Henseler et al., 2015). The threshold value for HTMT is lower than 0.85 and 0.90 for conceptually distinct and similar concepts, respectively (Henseler et al., 2015). According to Table 1, all HTMT scores are lower than the 0.85 conservative cut-off point. Additionally, the outcomes of the bootstrapping procedure show that none of the upper confidence interval boundaries exceeds 1.

Table 1: Heterotrait-Monotrait Ratio Results

Variable	PPS	TM	TC
Provision of public services (PPS)			
Tax Morale (TM)	0.741		
Tax Compliance (TC)	CI _{0.5,0.95} (0.657, 0.823)	0.809	
	CI _{0.5,0.95} (0.643, 0.785)	CI _{0.5,0.95} (0.507,0.721)	

Structural Model Evaluation Results

For structural model evaluation, the guideline principles were suggested by (Hair et al., 2019; Hair Jr et al., 2021; Shmueli et al., 2019). These guidelines include examining multicollinearity, the coefficient of determination (R^2), blindfolding and predictive relevance (Q^2), effect size (f^2), statistical significance, and relevance of the path coefficients and predictive power (PLSpredict). The process starts by ensuring that the regression findings of the structural model are not biased through testing the multicollinearity (Hair et al., 2019; Henseler et al., 2015). This study used the variance inflation factor (VIF) to measure the degree of multicollinearity. According to Table 2, all latent variable VIF values are below 3, as suggested by the conservative threshold (Hair et al., 2019).

Table 2: Evaluation Results for Multicollinearity

Independent variables	Dependent variables		Multicollinearity
	TM	TC	Problems VIF \geq 3
Provision of public services (PPS)	1.000	1.940	NO
Tax Morale (TM)		1.930	NO

From the table above, the VIF values are less than the minimum threshold of 3.3. This implies that the predictor variables are free of multicollinearity issues and common method bias. After that, the structural model path quality and significance was analysed. This required a bootstrapping technique employing 300 cases and 5,000 subsamples with no sign changes. The analysis tested the direct influence of provision of public services on tax compliance. The evaluation of the complete model that included tax morale as a mediator came next. Based on the findings in Table 4, the coefficient of determination (R^2) for the direct influence of provision of public services on tax compliance is 0.550, while it is 0.686 for the indirect relationship with tax morale acting as the mediator. Both results are satisfactory, and they are regarded as moderate, supporting the predictive accuracy of the model (Chin et al., 2020; Ringle et al., 2020). This analysis shows that provision of public services and tax morale account for 68.6% of the variance in tax compliance. Other factors not considered in this study account for the remaining 31.4%. Like these findings, statistical results from the blindfolding procedure show that the Q^2 values of SMEs tax compliance are 0.359 (for direct relationship) and 0.487 (for indirect relationship), which are both greater than zero. The results above demonstrate the predictive relevance of the PLS path model (Chin, 1998; Henseler et al., 2015)

Table 4: Evaluation Results for Structural Model

Path	Std. β	t-value	P-value	95%CI	R ²	Q ²
PPS→TC	0.676	4.616	0.000	(0.606, 0.742)	0.550	0.359
PPS→TM→TC	0.403	9.491	0.000	(0.338,0.466)	0.686	0.487
PPS→TM	0.696	14.679	0.000	(0.616, 0.773)		
PPS→TC	0.273	3.57	0.000	(0.180 ,0.374)		
TM→TC	0.579	10.782	0.000	(0.486,0.662)		

Notes: PPS=Provision of Public Services, TM=Tax Morale, TC=Tax Compliance. VAF=Variance accounted for

The significance of the path coefficients was also examined in this study. Table 3 demonstrates a significant positive link ($\beta = 0.676$, $p < 0.001$) between provision of public services and tax compliance. Similarly, the outcomes of the bootstrapping study support this relationship because the confidence intervals [0.606, 0.742] do not contain 0, hence H1 is supported. After considering tax morale as a mediator, the first thing is to evaluate the significance of the indirect relationship between provision of public services and tax morale (Carrión et al., 2017; Nitzl et al., 2016). According to Table 3 bootstrapping results, the indirect impact (PPS→ TM →TC) is significant and positive at $\beta = 0.403$, $p < 0.001$, with matched confidence intervals of [0.338,0.466], confirming the existence of a mediation effect. Furthermore, the direct relationship between PPS → TC is significant and positive ($\beta = 0.273$, $p < 0.001$) with confidence intervals of [0.180, 0.374]. Likewise, the relationship between PPS → TM is significant at $\beta = 0.696$, $p < 0.001$, with confidence intervals [0.616.0.773] not including zero. Moreover, TM → TC is significant at ($\beta = 0.579$, $p < 0.001$) with confidence interval of [0.486. 0.662]. According to these findings, hypotheses H2, H3, and H4 are all supported.

Additionally, to assess the strengths of the mediation, this study used variance accounted for (VAF). The VAF is a preferable alternative to the standard Sobel test for mediation (Shrout & Bolger, 2002). According to Nitzl et al. (2016), VAF calculates the size of the indirect effect as a percentage of the total effect. Data indicates that tax morale accounts for 58.91% of the impact of provision of public services on tax compliance. Given that the VAF is more than 20% but lower than 80%, this scenario can be classified as a partial mediation (Nitzl et al., 2016; Shrout & Bolger, 2002) .

PLSpredictt was also analysed in this study to measure the model's predictive power, and overfitting issues were focused on by producing holdout samples to carry out cross-validation. After applying the PLSpredict algorithm to all the data, the model's predictive ability was assessed using error metrics and the Q square root (Q2) (Ringle et al., 2023; Shmueli et al., 2019). All Q²predict values are greater than zero which indicates that PLS-SEM has an ability to predict. The endogenous variables (TC and TM) prediction abilities were evaluated using root mean square error (RMSE). Table 4 demonstrates that the PLS section's RMSE values are graeter than Mean Absolute Error(MAE) values. These findings support the model's predictive validity and suggest that the model has more substantial predictive power without overfitting issues. Moreover, the product of direct and indirect paths (0.273* 0.403) suggests the existence of a complementary partial mediation (Carrión et al., 2017).

Table 4: Partial Least Squares-Predict Results

	Q²Ppredict	PLS-SEM-RMSE	PLS-SEM MAE	LM-RMSE	LM-MAE
TC1	0.400	0.638	0.504	0.638	0.510
TC2	0.365	0.691	0.553	0.691	0.556
TC3	0.372	0.659	0.509	0.667	0.518
TC4	0.320	0.663	0.522	0.665	0.522
TC5	0.319	0.697	0.564	0.696	0.563
TC6	0.310	0.704	0.571	0.702	0.568
TC7	0.375	0.632	0.490	0.637	0.499
TM1	0.416	0.640	0.508	0.635	0.505
TM2	0.358	0.640	0.494	0.640	0.494
TM3	0.327	0.635	0.493	0.631	0.490
TM4	0.366	0.593	0.444	0.589	0.443
TM5	0.312	0.643	0.499	0.647	0.502
TM6	0.350	0.605	0.460	0.595	0.451
TM7	0.359	0.666	0.541	0.662	0.536

Discussion

This study aimed to examine the relationships between the provision of public services, tax morale, and tax compliance, utilizing the Theory of Planned Behavior (TPB) as a framework. The results of the analysis support all the hypotheses, demonstrating significant relationships between these variables and advancing our understanding of how public service provision influences tax compliance through tax morale.

The study found that the provision of public services positively affects tax compliance (H1). This result aligns with prior research, which suggests that taxpayers are more likely to comply when they perceive that their tax contributions are being reciprocated through quality public goods and services (Ahsan et al., 2024; Hossain et al., 2024). The findings reinforce the idea that tax compliance is not solely driven by legal obligations or deterrence but also by the perceived value of the services taxpayers receive in return. This suggests that the government's role in providing effective and visible public services plays a crucial part in shaping taxpayers' compliance behavior.

The hypothesis that the provision of public services positively influences tax morale (H2) was also supported. Taxpayers who perceive the government's public service provision as effective and equitable tend to have higher tax morale. This is consistent with previous studies that suggest the quality of public services impacts citizens' intrinsic motivation to comply with tax laws (Tjondro & Olivia, 2018; Tambun & Haryati, 2022). This study emphasizes that tax morale, rooted in personal and societal values, plays an important role in fostering tax compliance. As taxpayers feel that their contributions are being used responsibly, their intrinsic motivation to fulfill their tax obligations without coercion increases.

The third hypothesis, which posited that tax morale positively influences tax compliance (H3), was also supported. The results of this study are consistent with the work of Chong and Arunachalam (2018), who found that individuals with higher tax morale are more likely to comply with tax regulations. Tax morale, seen as a moral obligation to contribute to society,

was shown to significantly affect the taxpayers' willingness to comply with tax laws. These findings are in line with the Theory of Planned Behavior, where attitude and moral beliefs about tax payment influence behavioral intentions, ultimately affecting actual compliance (Ajzen, 1991).

Finally, the study found strong support for the hypothesis that tax morale mediates the relationship between the provision of public services and tax compliance (H4). This result is consistent with the proposition of Mat Jusoh et al. (2021), who theorized that higher tax morale, influenced by perceived fairness and the quality of public services, strengthens the relationship between public service provision and tax compliance. By acting as a mediator, tax morale highlights the psychological processes through which the provision of public services influences taxpayers' compliance behavior. The findings suggest that improving public services may not only directly encourage compliance but also indirectly do so by enhancing taxpayers' intrinsic motivation to pay taxes.

In general, the results of this study provide valuable insights into the role of public service provision in shaping tax morale and its subsequent effect on tax compliance. The findings suggest that governments seeking to improve tax compliance should focus not only on enforcement and policy but also on the effective delivery of public services. By enhancing the perceived value of these services, governments can foster a higher sense of tax morale, which in turn strengthens the overall compliance rate. This study contributes to the literature by highlighting the mediating role of tax morale and offers practical implications for policy makers in their efforts to boost tax compliance.

Conclusion

This study explored the relationship between the provision of public services, tax morale, and tax compliance, adding new insights to the existing body of research. Despite considerable research on public services and tax morale, little empirical evidence has linked these two factors in the context of improving taxpayers' tax compliance. The results of this study, however, demonstrate that the provision of public services significantly and positively influences tax compliance. Importantly, the study reveals that tax morale partially mediates this relationship, highlighting its crucial role in connecting the perceived quality of public services to increased compliance.

This study contributes to theoretical knowledge by demonstrating how provision of public services and tax morale relate to tax compliance, offering a novel perspective on the mediating role of tax morale. The findings further confirm the applicability of the Fiscal Exchange theory in understanding SMEs' tax compliance behavior. In practical terms, the study emphasizes that policy interventions focused on improving public service delivery and fostering tax morale can effectively enhance tax compliance among SMEs. Governments that prioritize the provision of adequate public services can strengthen tax morale, which in turn, improves overall compliance.

Despite its valuable contributions, the study has certain limitations. The cross-sectional and quantitative design limits the ability to establish causal inferences over time. Future research should extend this work by adopting longitudinal and qualitative approaches, providing deeper insights into the dynamics of tax compliance and its underlying mechanisms. Additionally, future studies could explore other determinants of tax compliance, such as tax

audits, penalties, and perceived fairness, while also considering multiple mediating or moderating factors, such as trust and the adoption of electronic tax systems. Expanding the geographical scope of the study to include other regions or developing economies could further enrich understanding of tax compliance behavior across different contexts, offering valuable comparisons between SMEs in developing and developed economies.

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