

TAXATION STUDIES | RESEARCH ARTICLE

Effect of E-Filing Quality and Tax Services on Taxpayer Compliance, Moderated by Compliance Costs

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Low taxpayer compliance in Indonesia, evidenced by a tax-to-GDP ratio of only 12.1% in 2022, presents a significant challenge despite the implementation of the e-filing system aimed at improving tax reporting efficiency. This study examines the influence of e-filing system quality and tax service quality on individual taxpayer compliance at the Samarinda Ulu Primary Tax Service Office (KPP Pratama Samarinda Ulu), East Kalimantan—a strategic location with 6.22% economic growth in Q1 2024, yet facing an energy transition that affects tax revenues—with compliance cost as a moderating variable. Utilizing a quantitative approach, data were collected from 100 taxpayers through Likert-scale questionnaires and analyzed using Structural Equation Modeling (SEM) with SmartPLS 4. Validity was assessed using factor loadings (>0.70), AVEs (>0.50), and Cronbach's Alpha (>0.70), while varying questionnaire formats controlled standard-method bias. The results show that e-filing system quality does not significantly influence compliance, whereas tax service quality has a significant positive effect. Compliance cost does not moderate either relationship. These findings underscore the importance of enhancing service quality, particularly responsiveness and empathy, to drive compliance. At the same time, improvements to the e-filing system are necessary to address technical issues in Samarinda. Managerial implications suggest team member training and system optimization to support national tax reform.

Keywords: E-Filing System Quality, Tax Service Quality, Taxpayer Compliance, Compliance Cost, Theory of Planned Behavior.

JEL Code: H26, H21, M15, C83

I. Introduction

Taxpayer compliance constitutes a fundamental pillar of fiscal sustainability and national development, particularly in developing economies that rely heavily on tax revenues to finance public expenditure. In Indonesia, taxation plays a strategic role in supporting infrastructure development, with approximately 70% of infrastructure financing sourced from tax revenues (Sugiartini et al., 2020). Consequently, improving taxpayer compliance is not merely an administrative concern but a structural prerequisite for ensuring sustainable economic development. Despite ongoing fiscal reforms, compliance among individual taxpayers remains a persistent challenge, underscoring the need for more effective policy instruments and institutional interventions. Theoretical explanations of taxpayer compliance are frequently

grounded in the Theory of Planned Behavior (TPB), which posits that behavior is shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991, as cited in Setyowati, 2020). Within this framework, compliance behavior emerges from taxpayers' intentions, which are influenced by their perceptions of the tax system, service quality, and the ease or difficulty of fulfilling tax obligations. When taxpayers perceive greater control and institutional support, their intention to comply is strengthened, increasing the likelihood of actual compliance (Siregar & Yuliani, 2025). TPB thus provides a relevant lens for examining how institutional factors, such as digital tax systems and service delivery, shape taxpayer behavior.

In response to technological advancement and demands for administrative efficiency, the Indonesian government has introduced the e-Filing system to facilitate tax reporting. The system enables taxpayers to submit annual tax returns flexibly across time and location, reducing procedural complexity and the time and monetary costs associated with compliance (Alfredo, 2022). Alongside technological reform, service quality within tax offices has been widely recognized as a critical determinant of compliance. Empirical evidence suggests that higher service quality—reflected in reliability, responsiveness, assurance, empathy, and tangible support—enhances taxpayers' willingness to comply with tax obligations (Muhammad & Mildawati, 2020). The SERVQUAL framework, developed by Parasuraman, Zeithaml, and Berry, has been extensively adopted to measure these dimensions of tax service quality (Arifianti et al., 2023; Nurhasanah, 2020). However, empirical findings regarding the effects of e-Filing system quality and tax service quality on individual taxpayer compliance remain inconclusive. Some studies report that both e-Filing quality and service quality exert significant positive effects on compliance, highlighting the complementary roles of digital systems and institutional interaction in shaping taxpayer behavior (Sirlyani et al., 2023). Other studies suggest that only e-Filing quality significantly influences compliance, while service quality shows no meaningful effect, implying that technological convenience may outweigh interpersonal service factors in specific contexts (Hilman, 2022). Conversely, Setyowati (2020) finds that e-Filing implementation does not significantly affect compliance, suggesting underlying constraints that limit the effectiveness of digital systems. These divergent findings reveal a substantive empirical gap and suggest that contextual or moderating variables may shape the relationship between institutional factors and taxpayer compliance.

One plausible explanation for this inconsistency lies in the role of compliance costs. According to Compliance Cost Theory, taxpayers incur not only direct monetary costs but also time and psychological costs in fulfilling tax obligations (Pope & Jabbar, 2008). Excessive compliance costs may weaken the positive effects of both digital systems and service quality, particularly when such costs exceed taxpayers' perceived benefits, creating a threshold effect that discourages compliance. Despite its theoretical relevance, compliance costs have received limited empirical attention as a moderating variable in studies examining e-Filing quality, service quality, and taxpayer compliance, especially in decentralized, geographically distant regions. This study addresses this gap by examining compliance costs as a moderating variable in the relationships among e-Filing system quality, tax service quality, and individual taxpayer compliance. The empirical context of this study is the Samarinda Ulu Primary Tax Service Office (KPP Pratama Samarinda Ulu), a frontline unit of the Directorate General of Taxes responsible for direct taxpayer interaction in East Kalimantan. This regional context is particularly relevant due to its geographic distance from the Directorate General of Taxes' central administration, disparities in educational backgrounds, limited access to tax information, and relatively low levels of bookkeeping practices among taxpayers compared to those in major urban centers in Java. Although the number of taxpayers submitting annual tax returns has increased over time, the reporting ratio has declined, indicating that growth in active taxpayers has outpaced growth in compliant taxpayers.

Data from KPP Pratama Samarinda Ulu show that the annual tax return reporting ratio decreased from 80% in 2019 to 69% in 2023, despite an increase in the absolute number of filed returns. This decline reflects structural compliance challenges rather than administrative stagnation, underscoring the urgency of identifying factors that can effectively enhance taxpayer compliance in this region. Given the strategic importance of regional tax offices as revenue collection hubs, understanding the interplay among digital systems, service quality, and compliance costs is critical for formulating targeted, context-sensitive policy interventions. Accordingly, this study aims to analyze the effect of e-Filing system quality on individual

taxpayer compliance, examine the effect of tax service quality on compliance, and assess whether compliance cost moderates the relationships between e-Filing system quality and compliance, as well as between service quality and compliance, at KPP Pratama Samarinda Ulu. By integrating TPB and Compliance Cost Theory within a regional empirical setting, this study helps resolve inconsistencies in prior findings. It offers policy-relevant insights to support Indonesia's ongoing tax administration reform.

II. Literature Review and Hypothesis Development

2.1. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) posits that intention is the primary predictor of behavior, shaped by attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991, as cited in Setyowati, 2020; Yoga & Dewi, 2022). In the context of tax compliance, TPB provides a robust analytical lens for understanding how institutional and systemic factors shape individual taxpayers' intentions to fulfill their tax obligations. Attitudes toward compliance may develop through efficient e-Filing experiences and high-quality tax services, while subjective norms emerge from social and institutional pressures that frame compliance as expected behavior (Syafuruddin et al., 2021; Deva & Triyono, 2021). Perceived behavioral control (PBC) is central to understanding tax compliance because it reflects the extent to which individual taxpayers perceive that they can effectively manage tax reporting processes. e-Filing system quality—such as ease of use, reliability, speed, and security—directly influences this sense of control. Systems that minimize technical issues and are easy to operate increase taxpayers' confidence in meeting filing obligations on time, thereby strengthening their intention to comply (Susmita & Supadmi, 2016; Zaikin et al., 2022). Consequently, e-Filing quality can be conceptualized as a structural manifestation of PBC within digital tax administration. In addition to PBC, subjective norms in TPB help explain the role of tax service quality. Tax officers, as representatives of state authority, function as significant others who shape institutional social pressure on taxpayers. Responsive, professional, and informative services enhance the perception that compliance is an expected norm supported by legitimate and credible institutions (Supadmi, 2009; Safitri & Silalahi, 2020). Thus, service quality operates not only as an administrative factor but also as a social mechanism that reinforces compliance norms in line with TPB.

2.2. Information System Success Model

The Information System Success Model proposed by DeLone and McLean emphasizes that system quality is a key determinant of system use and user satisfaction, which, in turn, generates net benefits at both the individual and organizational levels (Sapty Rahayu et al., 2018). In the e-Filing context, system quality reflects how well the technology meets users' functional needs, including ease, flexibility, and reliability (Surono et al., 2022). When the e-Filing system is intuitive and responsive, taxpayers are more likely to adopt it consistently and demonstrate higher compliance in submitting annual returns (Putra, 2022). Integrating the Information System Success Model with TPB strengthens the theoretical explanation of compliance by positioning system quality as a factor that not only drives technology use but also shapes attitudes and perceived control. However, empirical evidence remains mixed: successful information systems do not always translate into improved compliance. This inconsistency suggests that contextual factors may condition the effect of system quality on compliance outcomes.

2.3. Servqual Model (Service Quality Model)

The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry conceptualizes service quality as the gap between customers' expectations and their perceived service performance, measured along the dimensions of tangibility, reliability, responsiveness, assurance, and empathy (Lupiyoadi, 2008; Tesalonika

Tompodung & Florence Lengkong, 2023). In tax administration, service quality is strategically important for reducing uncertainty, strengthening trust, and fostering cooperative relationships between taxpayers and tax authorities. High-quality tax services may enhance compliance by reinforcing subjective norms and cultivating positive attitudes toward fulfilling tax obligations. For example, responsiveness and empathy can reduce perceived risks and anxiety, increasing taxpayers' willingness to comply. Nevertheless, the strength of service quality effects may vary across institutional and demographic contexts, which helps explain inconsistencies in prior findings on service quality and compliance.

2.4. E-Filing System

The e-Filing system is a digital mechanism designed to improve the efficiency and transparency of annual tax return submissions via real-time online reporting (pajak.go.id). Normatively, e-Filing is expected to reduce administrative barriers, limit face-to-face interactions, and support Indonesia's national tax digitalization agenda, as regulated by the Directorate General of Taxes Regulation No. PER-02/PJ/2019. In practice, e-Filing offers benefits such as time and cost savings and flexible filing. However, the availability of e-Filing does not necessarily guarantee increased compliance. Technical issues, limited digital literacy, and unequal access to tax information can reduce system effectiveness—particularly in regions distant from central administration. This indicates that e-Filing quality should be assessed not only as a technological feature but also as a user- and context-dependent determinant.

2.5. Compliance Cost

Compliance Cost Theory holds that tax compliance entails costs borne by taxpayers, including monetary, time, and psychological costs (Pope & Jabbar, 2008; Muamarah et al., 2024). Sanford (1995, as cited in Richardson & Sawyer, 2001) highlights that compliance costs encompass all sacrifices required to meet tax obligations, including stress, anxiety, and operational disruptions. High compliance costs may weaken the positive effects of e-Filing quality and tax service quality on compliance. Conceptually, compliance cost acts as a contingency factor that can strengthen or weaken the relationship between system/service quality and compliance. Prior studies show that compliance costs moderate the impact of e-Filing on compliance (Erwanda et al., 2019) and also moderate the relationship between tax service quality and compliance (Nurhasanah, 2020). However, evidence remains limited and context-specific, indicating an empirical gap—particularly regarding the moderating mechanism in regional digital tax settings. Based on that, our hypotheses are:

H1 : e-Filing system quality significantly influences individual taxpayer compliance.

H2 : Tax service quality significantly influences individual taxpayer compliance.

H3 : Compliance costs moderate the relationship between e-Filing system quality and individual taxpayer compliance.

H4 : Compliance costs moderate the relationship between tax service quality and individual taxpayer compliance.

III. Research Method

3.1. Research Design

This study employed a quantitative research design grounded in a positivist paradigm to examine causal relationships among variables. A quantitative approach was chosen because it enables hypothesis testing through statistical analysis and facilitates objective, generalizable conclusions (Balaka, 2022). The

study analyzed the effects of e-Filing system quality and tax service quality on individual taxpayer compliance, with compliance costs incorporated as a moderating variable.

3.2. Population and Sample

The population comprised 62,965 individual taxpayers registered at the Samarinda Ulu Primary Tax Service Office (KPP Pratama Samarinda Ulu) who were obligated to submit annual tax returns. Due to time, cost, and human resource constraints, the sample size was determined using Slovin's formula with a 10% margin of error, a commonly used approach in social research involving large populations and limited resources (Yamane, 1967). Based on this calculation, 100 taxpayers were selected as respondents—the sampling approach aimed to achieve sufficient representativeness to generate meaningful empirical insights at the local policy level.

3.3. Data Collection Procedures

Primary data were collected through an online survey administered via Google Forms. The questionnaire employed a Likert-scale format to measure respondents' perceptions of e-Filing system quality, tax service quality, compliance cost, and individual taxpayer compliance. The use of a Likert scale allowed for systematic quantification of attitudes and perceptions, ensuring comparability across respondents and variables. To minimize common method bias (CMB), procedural remedies were implemented, including respondent anonymity, variation in question formats, and separation of measurement items for independent, moderating, and dependent variables.

3.4. Instruments and Measures

The research instrument consisted of structured questionnaire items adapted from established theoretical models. e-Filing system quality was measured using indicators derived from the Information System Success Model, including ease of use, access speed, system reliability, flexibility, and security (Syafuruddin et al., 2021). Tax service quality was assessed using the SERVQUAL model, encompassing reliability, responsiveness, assurance, empathy, and the tangible aspects of service delivery (Arifianti et al., 2023). Individual taxpayer compliance was operationalized using indicators aligned with the Theory of Planned Behavior, including timely tax registration, timely tax payment, timely submission of annual tax returns, and accuracy in tax calculation (Ajzen, 1991; Syafuruddin et al., 2021). Compliance costs, as a moderating variable, were measured using monetary, time, and psychological costs, following the Compliance Cost framework (Pope & Jabbar, 2008). All items were rated using a Likert scale to capture the degree of respondent agreement.

3.5. Data Analysis Techniques

Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.0. PLS-SEM was selected for its suitability for both exploratory and predictive analysis, particularly in models involving multiple latent variables and moderating effects. The analysis comprised two stages: evaluation of the measurement model and assessment of the structural model. Measurement model evaluation involved examining indicator loadings, average variance extracted (AVE), composite reliability, and Cronbach's alpha. Structural model assessment included evaluating path coefficients, coefficient of determination (R^2), and hypothesis testing. Hypotheses were accepted when path coefficients were positive and statistically significant at a p-value threshold below 0.05 (Ghozali, 2021).

3.6. Validity and Reliability

Construct validity was assessed using factor loadings and AVE values. Indicators with loading values exceeding 0.60 were considered acceptable, while AVE values above 0.50 indicated adequate convergent validity. Reliability was evaluated using composite reliability and Cronbach's alpha coefficients, with thresholds of 0.70 and 0.60, respectively, indicating acceptable internal consistency. Additionally, Harman's single-factor test was conducted in SPSS to detect potential common-method bias. The results indicated that no single factor accounted for more than 50% of the total variance, suggesting that common method bias was not a significant concern.

3.7. Moderation Analysis

Moderated Regression Analysis (MRA) within the PLS-SEM framework was applied to examine the moderating role of compliance cost in the relationships between e-Filing system quality and taxpayer compliance, as well as between tax service quality and compliance. Interaction terms were constructed by multiplying independent variables by their respective moderators. Moderation effects were considered significant when interaction terms yielded p-values below 0.05 (Ghozali & Latan, 2015). The moderation type was further classified as pure moderation, quasi-moderation, predictor moderation, or potential moderation based on the statistical significance of the moderator and interaction terms.

3.8. Ethical Considerations

Ethical considerations were addressed by ensuring voluntary participation, respondent anonymity, and confidentiality of all collected data. Respondents were informed of the study's academic purpose, and no personally identifiable information was collected. These procedures ensured compliance with ethical standards in social science research.

IV. Results and Discussion

4.1. Analysis Result

a. Structural Model Evaluation

Before testing the hypotheses, multicollinearity among predictors was assessed using the Variance Inflation Factor (VIF) based on the inner model. The results are presented in Table 1.

Table 1. Variance Inflation Factor (VIF) Results

Relationship	VIF
Compliance Cost (Z) → Taxpayer Compliance (Y)	1.247
e-Filing System Quality (X1) → Taxpayer Compliance (Y)	1.874
Tax Service Quality (X2) → Taxpayer Compliance (Y)	1.967
Compliance Cost (Z) × Tax Service Quality (X2) → Taxpayer Compliance (Y)	3.354
Compliance Cost (Z) × e-Filing System Quality (X1) → Taxpayer Compliance (Y)	3.098

All VIF values are below the commonly accepted threshold of 5, indicating that multicollinearity is absent in the structural model. The lowest VIF value is observed for the relationship between compliance cost and taxpayer compliance (VIF = 1.247), while the highest values occur in the interaction terms involving compliance cost. Although the interaction terms show relatively higher VIF values, they remain within acceptable limits, confirming that the model estimates are robust and not distorted by multicollinearity.

b. Hypothesis Testing and Moderation Effects (PLS-SEM)

The results of hypothesis testing for both direct and moderating effects using PLS-SEM are summarized in Table 2.

Table 2. Hypothesis Testing Results (Moderated Effects)

Path	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics	P Values
e-Filing System Quality (X1) → Taxpayer Compliance (Y)	-0.039	0.024	0.222	0.176	0.430
Tax Service Quality (X2) → Taxpayer Compliance (Y)	0.606	0.596	0.158	3.832	0.000
Compliance Cost (Z) × e-Filing System Quality (X1) → Taxpayer Compliance (Y)	-0.358	-0.243	0.240	1.490	0.068
Compliance Cost (Z) × Tax Service Quality (X2) → Taxpayer Compliance (Y)	0.197	0.171	0.155	1.269	0.102

The results indicate that e-Filing system quality does not significantly affect taxpayer compliance ($\beta = -0.039$, $p = 0.430$); therefore, Hypothesis 1 is rejected. In contrast, tax service quality has a substantial and statistically significant positive effect on taxpayer compliance ($\beta = 0.606$, $p < 0.001$), supporting Hypothesis 2. Regarding moderation effects, the interactions between compliance cost and e-Filing system quality ($p = 0.068$) and between compliance cost and tax service quality ($p = 0.102$) are not statistically significant at the 5% level. Accordingly, Hypotheses 3 and 4 are rejected in the PLS-SEM analysis.

c. Goodness of Fit Evaluation

Model adequacy was assessed using the Goodness of Fit (GoF) index, as reported in Table 3.

Table 3. Goodness of Fit (GoF) Components

Construct	AVE	R-square
Compliance Cost (Z)	0.729	0.409
Taxpayer Compliance (Y)	0.589	—
e-Filing System Quality (X1)	0.624	—
Tax Service Quality (X2)	0.767	—
Average	0.677	0.409

The GoF value was calculated as $\sqrt{(\text{average AVE} \times \text{average R-square})}$, yielding a GoF of 0.526. This value exceeds the recommended threshold of 0.36, indicating that the model demonstrates a high overall fit and strong explanatory power.

d. Moderated Regression Analysis (MRA)

To further examine the moderating role of compliance cost, a Moderated Regression Analysis was conducted. The results are shown in Table 4.

Table 4. Moderated Regression Analysis (MRA) Results

Variable	Estimate	Std. Error	t-value	p-value
Intercept	0.00172	0.0174	0.099	0.9216
e-Filing System Quality (X1) → Y	-0.0539	0.0502	-1.074	0.2857
Tax Service Quality (X2) → Y	0.2803	0.0523	5.360	<0.005
Compliance Cost (Z) → Y	-0.0559	0.0208	-2.683	0.0086
X1 × Z → Y	-0.2104	0.0648	-3.249	0.0016
X2 × Z → Y	0.1152	0.0621	1.856	0.0665

The MRA results show that tax service quality has a significant positive direct effect on taxpayer compliance, whereas e-Filing system quality does not. Compliance cost has a significant adverse direct effect on compliance, indicating that higher perceived costs reduce compliance levels. Importantly, the interaction between e-Filing system quality and compliance cost is statistically significant, suggesting that compliance cost moderates the relationship between e-Filing quality and compliance. Conversely, the interaction between tax service quality and compliance cost is not statistically significant, although it approaches marginal significance.

e. Model Evaluation (MRA)

The overall fit and predictive power of the MRA model are presented in Table 5.

Table 5. MRA Model Evaluation

Statistic	Value
R ²	0.4052
Adjusted R ²	0.3743
Q ²	1
SRMR	0.000
F-statistic	13.08
Model p-value	<0.005
Residual Standard Error	0.1741
Degrees of Freedom	96

The model explains approximately 40.5% of the variance in taxpayer compliance. The significant F-statistic and low residual standard error indicate good model fit and predictive accuracy.

f. Interaction Effects

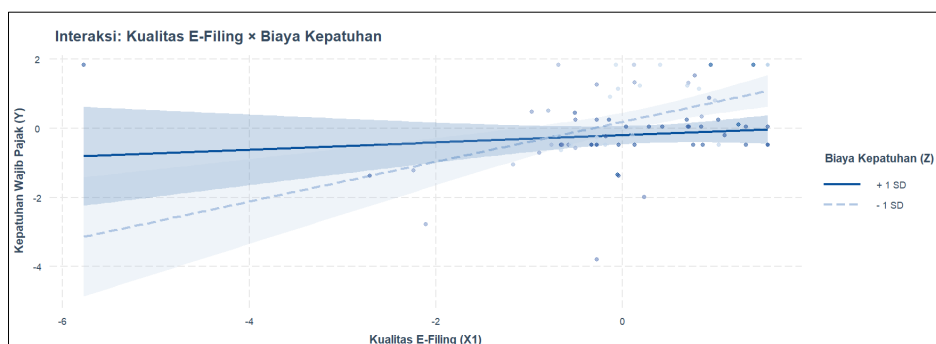


Figure 1. Interaction Between E-Filing Quality (X1) and Compliance Costs (Z) on Taxpayer Compliance (Y)

Figure 1 illustrates the interaction between e-Filing system quality and compliance cost. When compliance costs are high, improvements in e-Filing quality are associated with higher taxpayer compliance, whereas the relationship is weak or slightly negative when compliance costs are low. This finding confirms the moderating role of compliance cost in the e-Filing–compliance relationship.

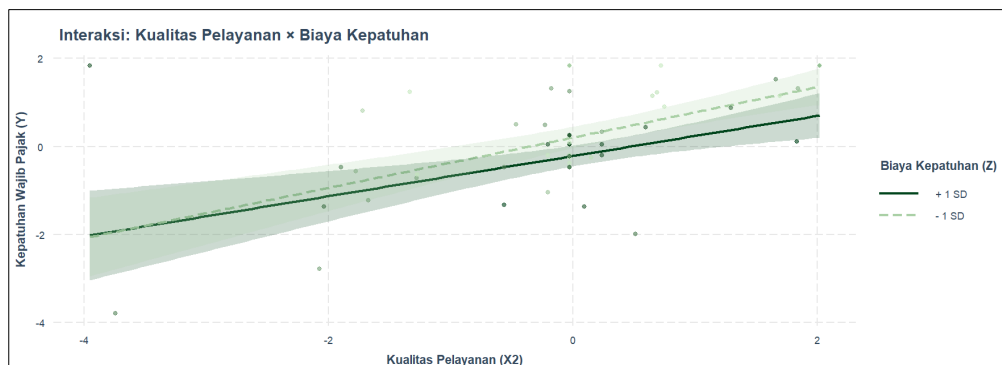


Figure 2. Interaction Between Service Quality (X2) and Compliance Costs (Z) on Taxpayer Compliance (Y)

Figure 2 depicts the interaction between tax service quality and compliance cost. The relationship between service quality and compliance remains positive under both high- and low-compliance-cost conditions. Although the interaction term approaches marginal significance ($p = 0.0665$), compliance cost does not substantially alter the positive effect of service e quality on taxpayer compliance.

4.2. Discussion

a. The Effect of e-Filing System Quality on Taxpayer Compliance

The first hypothesis proposed that e-Filing system quality has a significant effect on individual taxpayer compliance. The quality of the e-Filing system was operationalized through indicators of ease of use, response time, system reliability, flexibility, and security (Syafuruddin et al., 2021), drawing upon the Information System Success Model, which posits that system quality directly influences system usage and user behavior (Surono et al., 2022). In the tax administration context, a high-quality e-Filing system is expected to reduce technical barriers and enhance reporting efficiency, thereby encouraging taxpayer compliance. However, the empirical results indicate that e-Filing system quality does not have a significant effect on taxpayer compliance, as evidenced by a p-value exceeding the 0.05 threshold. This finding suggests that improvements in system features alone are insufficient to drive compliance behavior among individual taxpayers.

The result is consistent with Setyowati (2020), who also found that e-Filing implementation did not significantly affect taxpayer compliance. One possible explanation is that e-Filing has become a standardized administrative requirement rather than a motivating factor; taxpayers may use the system out of obligation rather than perceived system excellence. This finding implies that tax authorities cannot rely solely on technological enhancements to improve compliance. While system reliability and security remain necessary conditions, they do not appear to be sufficient drivers of behavioral change. Complementary strategies—such as taxpayer education, targeted assistance, and enforcement mechanisms—are needed to translate digital convenience into actual compliance outcomes. Moreover, further evaluation of user-specific barriers, such as system navigation complexity or server stability, may help explain why perceived system quality does not translate into higher compliance.

b. The Effect of Tax Service Quality on Taxpayer Compliance

The second hypothesis posited that tax service quality significantly affects taxpayer compliance. Service quality was measured using SERVQUAL dimensions, including tangibles, reliability, responsiveness, assurance, and empathy (Tesalonika Tompodung & Florence Lengkong, 2023). The results strongly support this hypothesis, indicating that tax service quality has a positive and statistically significant effect on compliance. This finding underscores the importance of human interaction and institutional trust in shaping compliance behavior. Responsive, professional, and empathetic services enhance taxpayers' perceptions of fairness and support, which are critical components of voluntary compliance. In contexts such as Indonesia, where direct interaction between taxpayers and tax officers remains common, service quality becomes a salient determinant of taxpayer experience and behavior. The results align with Sirlyani et al. (2023), who demonstrated that high-quality tax services significantly improve taxpayer compliance. From a theoretical perspective, this finding reinforces the relevance of the Theory of Planned Behavior, particularly the role of subjective norms and perceived behavioral control. Professional and supportive services strengthen institutional norms that frame compliance as expected and manageable behavior. Practically, the findings suggest that investments in staff training, service responsiveness, and service infrastructure are likely to yield tangible improvements in compliance.

c. The Moderating Role of Compliance Cost in the Relationship between e-Filing System Quality and Taxpayer Compliance

The third hypothesis examined whether compliance cost moderates the relationship between e-Filing system quality and taxpayer compliance. The PLS-SEM results indicate that this moderating effect is not statistically significant, leading to the rejection of the hypothesis. This suggests that variations in compliance cost do not meaningfully alter the relationship between perceived e-Filing quality and compliance behavior. Compliance costs encompass the monetary, time, and psychological burdens associated with fulfilling tax obligations. In theory, digital systems such as e-Filing are expected to reduce these costs by simplifying procedures and minimizing time expenditure. However, the findings suggest that compliance costs associated with e-Filing may already be relatively low or homogeneous across respondents, limiting their capacity to moderate behavioral outcomes. Furthermore, the absence of a direct effect of e-Filing system quality on compliance may partially explain the lack of moderation. When a predictor does not exert a significant main effect, its interaction with a moderating variable is less likely to produce a meaningful impact. These findings indicate that improving system quality or marginally reducing compliance costs alone may not be sufficient to influence compliance behavior. Instead, broader behavioral and institutional factors—such as tax knowledge, awareness, and trust—may play a more decisive role.

d. The Moderating Role of Compliance Cost in the Relationship between Tax Service Quality and Taxpayer Compliance

The fourth hypothesis proposed that compliance cost moderates the relationship between tax service quality and taxpayer compliance. The results show that this moderating effect is not statistically significant, although the interaction term approaches marginal significance. Formally, the hypothesis is rejected, indicating that the positive effect of service quality on compliance remains stable regardless of perceived compliance cost. This finding suggests that high-quality tax services exert a consistent influence on compliance behavior, independent of the cost burden taxpayers face. Even when compliance costs are perceived as relatively high, professional and empathetic service delivery continues to foster trust and compliance. One possible explanation is that high service quality mitigates the psychological burden of compliance, thereby offsetting cost-related concerns. From a policy perspective, this result implies that reducing compliance costs alone may not amplify the benefits of service quality improvements. Instead,

service quality functions as an independent driver of compliance. Consequently, tax authorities should prioritize maintaining and enhancing service standards, while viewing cost-reduction strategies as complementary rather than synergistic measures.

V. Conclusion

This study concludes that individual taxpayer compliance at the Samarinda Ulu Primary Tax Service Office is influenced more strongly by tax service quality than by the quality of the e-Filing system. The findings indicate that e-Filing system quality does not have a significant effect on taxpayer compliance, whereas tax service quality has a positive, statistically significant effect. Furthermore, compliance cost does not function as a moderating variable in the relationships between e-Filing system quality and compliance, nor between tax service quality and compliance. These results suggest that digital tax administration, while essential from an operational perspective, is insufficient on its own to induce compliance without effective, human-centered service delivery. From a theoretical perspective, this study contributes to the tax compliance literature by highlighting the predominance of service-based institutional factors over technological factors in shaping compliance behavior, particularly within a regional context. The findings reinforce behavioral approaches to tax compliance, emphasizing the role of subjective norms and perceived institutional support. From a managerial standpoint, the results underscore the importance of continuously improving tax service quality by building the capacity of tax officers, especially in responsiveness, empathy, and service reliability. Although the e-Filing system's quality did not significantly influence compliance, targeted system improvements remain necessary to reduce user frustration and enhance perceived ease of use. Efforts to reduce compliance costs, including time, monetary, and psychological burdens, should also be maintained as complementary strategies to improve overall accessibility and taxpayer experience.

Several limitations should be acknowledged when interpreting the results of this study. The relatively small sample size and the focus on individual taxpayers within a single tax office limit the generalizability of the findings. In addition, the reliance on self-reported survey data may introduce perceptual bias, despite procedural controls implemented to mitigate common method bias. Other potentially influential factors, such as digital literacy, tax knowledge, and trust in tax authorities, were not explicitly examined. Future research is therefore encouraged to involve larger and more diverse samples, include corporate taxpayers, integrate qualitative approaches to explore user experiences in greater depth, and examine additional moderating or mediating variables. Longitudinal studies are also recommended to capture changes in taxpayer compliance over time as tax systems and service delivery continue to evolve.

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