

The Moderating Effect of Tax Service Quality on The Relationship Between Tax Education and Rural SMEs Tax Compliance Behaviour In Ghana

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Abstract: The role of tax education and service quality in recent year has gained renewed attention in tax policy and compliance discussions, especially within developing economies where revenue mobilization challenges persist. This study shifts from conventional approaches by exploring how quality of tax service can affect the relationship between tax education and tax compliance behaviour among Small and Medium-Sized Enterprises (SMEs) in Ghana. A cross-sectional and correlational research design was employed, using Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyse data from 381 SME operators. The findings revealed a strong positive relationship between tax education and tax compliance behaviour, indicating that increased awareness of tax responsibilities enhances voluntary compliance. Additionally, tax service quality independently showed a significant positive effect on compliance behaviour. Most notably, tax service quality was found to significantly moderate the relationship between tax education and tax compliance, suggesting that the impact of education is strengthened in environments where taxpayers experience professional, responsive, and accessible service delivery. The study puts forward a recommendation for tax authorities to enhance both the clarity of educational materials and the quality of taxpayer engagement. Furthermore, integrating tax education into vocational and entrepreneurial training could foster greater understanding and willingness to comply, especially among SME taxpayers who often operate in the informal sector.

Keywords: Tax Education, Tax Service Quality, Tax Compliance Behaviour, Small and Medium Enterprises (SMEs)

I. Introduction

Across the globe, citizens expect their governments to implement effective policies, support development projects, and deliver essential public goods and services that enhance their quality of life (Matt, 2018). The extent to which governments can fulfill these responsibilities largely depends on the amount of tax revenue they are able to generate (Seidu et al., 2021). Although multiple revenue sources are available to governments, taxation remains the most reliable and sustainable means of financing national development, particularly in both developed and developing economies (Boateng et al., 2022).

However, one persistent challenge undermining the full realization of tax revenue is tax non-compliance. This issue has proven to be a significant obstacle for countries globally, impeding their ability to meet revenue targets (Azmi & Daud, 2024; Dang & Nguyen, 2022; Vincent & Ntim, 2021). Tax non-compliance refers to the intentional or unintentional failure of taxpayers to fulfill their tax obligations (Azmi & Daud, 2024). It encompasses a range of behaviors including evasion of tax laws to reduce liability (Rimouchie & Fateh, 2024), failure to file tax returns, and delays or defaults in tax payment (Abjadi et al., 2023). These behaviors are legally punishable and erode the fiscal capacity of governments. While some instances of tax non-compliance stem from deliberate avoidance, others arise from taxpayers' limited understanding of tax laws or lack of awareness of policy amendments (Azmi & Daud, 2024; Certified Public Accountant [CPA], 2024). Regardless of the cause, the impact remains the same, thus, diminished government revenue and reduced capacity to create jobs, ultimately contributing to rising unemployment (Carsamer & Abbam, 2020).

Even countries with well-established tax systems are not immune to this problem. Although developed nations generally perform better in tax compliance, as evidenced by higher tax-to-GDP ratios, none have crossed the 50% threshold (Seidu et al., 2021). For example, the Organisation for Economic Cooperation and Development (OECD, 2023) reported a decline in the United States' tax-to-GDP ratio from 28.3% in 2000 to 27.7% in 2022 (Siasa, 2024). Similarly, countries such as Switzerland and Italy face significant losses due to unreported economic activities, estimated between 6% and 27% of potential revenue. This underscores the heightened vulnerability of developing countries, particularly those in Africa where weak tax institutions, ineffective legislation, and widespread corruption pose serious challenges to revenue mobilization (Boateng et al., 2022).

In the African context, progress has been modest. The year 2022 recorded an average tax-to-GDP ratio of 16.0% among 36 African countries, representing a 0.5 percentage point increase from 2021 (OECD, 2024). This marked the second consecutive year of growth, following a 0.3 percentage point rise in the previous year. However, Africa's average tax revenues remained lower than those of other regions, including Asia and the Pacific (19.3%), Latin America and the Caribbean (21.5%), and OECD countries (34.0%). Country-wise, the disparity is striking. Nigeria, for example, despite its sizable economy, has a tax-to-GDP ratio of just 5%, significantly below the 34.1% average in OECD countries and 20% in emerging markets (Amaeshi et al., 2020). This gap illustrates the limitations of tax collection systems in translating economic growth into actual revenue. Ghana also grapples with

this persistent issue. In 2021, the country's tax-to-GDP ratio stood at 14.1%, trailing behind the 15.6% average recorded across 33 African nations in 2023 (Mishiwo, 2024). This underperformance reflects multiple systemic challenges ranging from ineffective tax administration and limited compliance enforcement to economic volatility. However, it is important to acknowledge that the Ghanaian government has not remained passive in the face of these difficulties.

Several interventions have been rolled out to improve compliance and broaden the tax net. These include digitalizing the tax system, implementing a self-assessment regime, and launching taxpayer education initiatives, (Ministry of Finance, 2023). Tax education in particular plays a pivotal role in shaping taxpayers' compliance behaviour, especially among SMEs, who often lack the formal structures and knowledge base of larger corporations. According to Bank of Ghana, (2022), although SMEs account for over 80% of employment and more than 70% of Ghana's GDP, they continue to represent a significant portion of the non-compliant taxpayer population. According to studies (Kurniawan, 2020; Wong, 2015), increasing awareness of tax obligations, rights, and procedures, through tax education equips business owners with the necessary information to make informed decisions regarding their tax responsibilities. Bawa and Boachie, (2024) further established that, well-structured tax education programs help demystify complex tax laws, reduce misconceptions, and build a sense of civic duty among taxpayers. Similarly, Trawule, et al. (2022) confirmed that both tax education and ease of compliance significantly enhance voluntary (committed) tax compliance. This underscores the importance of making tax processes simpler and ensuring that taxpayers have access to clear, practical knowledge of their obligations. In Ghana, tax education initiatives delivered through workshops, mass media campaigns, and outreach activities have been introduced to improve voluntary compliance, particularly in the informal sector where SMEs predominantly operate (Tetteh, 2019). The underlying assumption is that when taxpayers know how the tax system works and perceive it as fair and transparent, their probability of compliance likely to be high and consistently.

However, the effectiveness of tax education is neither guaranteed nor consistent across different contexts. In Ghana, for instance, recent findings by Peprah et al. (2022) reveal that tax non-compliance continues to be particularly widespread among Small and Medium Enterprises (SMEs), despite various educational initiatives. Their study uncovered a paradox: while some SMEs intentionally evade taxes, others due to limited understanding or misinformation end up paying more than they legally owe. This dual reality highlights the complex and often ambiguous nature of SME tax behaviour, underscoring that knowledge gained through tax education alone does not always translate into appropriate compliance actions. The situation may be even more pronounced among SMEs in rural areas, where barriers which includes limited access to digital infrastructure and inadequate exposure to government support services further weaken compliance capacity. Compared to their urban counterparts, rural SMEs are disproportionately disadvantaged in navigating the tax system, making them more vulnerable to non-compliance, whether intentional or accidental (Kyobe, 2009). These disparities point to a critical gap in the current approach to tax compliance suggesting that information provision, on its own, is insufficient to drive meaningful behavioural change. This, is where quality of tax service becomes essential.

Tax service quality is understood to be the extent to which tax authorities deliver services that are timely, accurate, accessible, courteous, and solution-oriented (Fratana & Khairudin, 2025; Thornton et al., 2019; Mustapha & Obid, 2015). It encompasses key elements such as assistance during tax filing, clarity in communication, professionalism of staff, and responsiveness to taxpayer concerns (Fratana & Khairudin, 2025). High-quality tax service delivery plays a crucial role in amplifying the impact of tax education by fostering trust in the system, clarifying complex procedures, and making compliance more accessible and less burdensome for taxpayers. According to studies, when services are timely, responsive, and user-friendly, they reinforce the knowledge gained through education and encourage taxpayers to fulfill their obligations with greater confidence (Dharmayanti, 2023; Budaharini et al., 2022; Susuawu et al., 2020; Huiskers-Stoop & Gribnau, 2019). In contrast, Kiptum et al. (2024) noted poor tax service delivery is a problem in developing economies like Ghana. Thus, poor service delivery characterized by bureaucratic delays, unprofessional conduct, or lack of accessible support can undermine even the most well-intentioned educational efforts. In such cases, confusion and frustration may persist, leading to non-compliance despite the taxpayer being adequately informed. Indeed, a well-educated SME may still fail to comply if they encounter systemic inefficiencies or unresponsive tax officials. Conversely, when tax education is supported by efficient and professional service delivery, the chances of voluntary compliance increase significantly (Fratana & Khairudin, 2025; Kiptum et al., 2024; Dharmayanti, 2023). These dynamics highlights the importance of not only providing tax education but also cultivating a supportive tax environment where service quality facilitates the practical application of tax knowledge. Ultimately, it is the synergy between education and high service standards that sustains and strengthens tax compliance behaviour among SMEs.

Given the complexity of this relationship, several studies have explored how tax education and quality of tax service affects compliance, particularly among SMEs. For instance, Ratnawati et al. (2019) and Mbilla et al. (2020) highlight that tax education improves taxpayer awareness and technical knowledge, which are crucial for compliance. Also, Soetjahyo et al. (2024) and Franata and Khairudin (2025) found that education, when supported by taxpayer awareness and service quality, significantly enhances compliance behaviour. Moreover, just like tax education, quality of tax service has been widely recognized as a driver of compliance. Studies in Ghana by Susuawu et al. (2020) found that reliability, responsiveness, assurance, and empathy in service delivery positively affect SME compliance. Similarly, Rizkiani (2022), Putra et al. (2025), and Dharmayanti (2023) showed that service quality including transparency, timely assistance, and courteous staff encourages voluntary tax compliance. However, as Heriel and Vaishali (2024) observed in Tanzania, not all aspects of service quality yield the same results; while tangibility mattered, responsiveness and reliability did not significantly influence compliance. Additionally, more recent studies have examined how service quality interacts with other factors. Yahaya et al. (2023) revealed that taxpayer's knowledge alone had no material effect on

voluntary compliance in Nigeria unless accompanied by quality service, which served as a positive moderator. Likewise, Augustine et al. (2020) emphasized the role of trust and service delivery in enhancing voluntary tax compliance. In Kenya, Kiptum et al. (2024) found that service quality significantly influenced both trust in government and tax compliance, with trust mediating the relationship. They also noted that social value orientation strengthened these effects.

Although numerous studies have acknowledged the role of tax education and tax service quality in enhancing tax compliance (Ratnawati et al., 2019; Susuawu et al., 2020; Franata & Khairudin, 2025), several important gaps remain, particularly within the Ghanaian SME context. First, the empirical studies on the link between tax education and compliance behaviour has shown mixed results. While some researchers report a strong positive association (Mbilla et al., 2020; Soetjahyo et al., 2024), others, such as Yahaya et al. (2023), revealed that taxpayer knowledge alone did not significantly affect voluntary compliance, suggesting that education may not be effective unless supported by other factors like quality service delivery. Also, despite growing efforts by the Ghana Revenue Authority to educate taxpayers, compliance among SMEs remains low (Susuawu et al., 2020). This calls into question the standalone impact of education, especially in contexts where service delivery is poor. Kiptum et al. (2024) and Augustine et al. (2020) emphasize that trust in government and the quality of tax services perceived by payers are critical enablers of their behaviour towards compliance. Their findings reveal that when services are inefficient, unprofessional, or difficult to access, they can erode taxpayer confidence, thereby weakening the effect of education. Furthermore, although both tax education and quality of service have been individually studied, very few researchers have examined how quality of tax service quality may affect the link between tax education and compliance, particularly in developing countries like Ghana where taxpayers face digital, structural, and administrative barriers. Crucially, Yahaya et al. (2023) addressed this gap in Nigeria and found that tax service quality significantly strengthened the effect of education on taxpayers' compliance behaviour. However, similar studies within the Ghanaian SME sector are lacking, despite clear evidence that SMEs face unique compliance barriers such as low digital access, limited support, and poor service engagement (Susuawu et al., 2020; Kiptum et al., 2024; Heriel & Vaishali, 2024). Moreover, recent public sector reforms in Ghana emphasize client-centred tax service delivery (Ministry of Finance, 2023), yet there is limited empirical evidence on how this interacts with existing tax education initiatives. As Ghana continues its drive to broaden the tax base by integrating more SMEs into the formal tax system, understanding this interaction becomes increasingly important. Thus, the research addresses a significant gap by analysing the influence of tax service quality as a moderating factor in the relationship between tax education and compliance behaviour in the Ghanaian context, focusing on rural SMEs. This inquiry is both timely and policy-relevant, as it provides much-needed empirical evidence to inform tax policy, improve compliance strategies, and strengthen the relationship between SMEs and tax authorities in Ghana.

II. Literature Review

Theoretical Review

This study is underpinned by the Theory of Planned Behaviour (TPB) developed by Ajzen (1991). This theory is widely used to explain the factors that influence individuals' decision-making and behaviour. The theory posits that an individual's intention to perform a behaviour such as complying with tax obligations is influenced by three components, namely attitudes toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991).

In tax compliance contexts, attitude refers to a taxpayer's evaluation of the outcomes of fulfilling tax obligations. If SME operators believe that tax compliance is beneficial such as supporting national development or securing eligibility for loans, they are more likely to comply (Amaning et al., 2020; Mebratu, 2024). Positive attitudes can be fostered through taxpayer education and positive engagement with tax authorities. Also, subjective norms involve the perceived social expectations or pressures to comply. These may come from business peers, customers, or community leaders. Taxpayers who believe that their compliance behaviour is observed or expected by important social actors are often more inclined to adhere to tax regulations (Safian & Ngah, 2020). In the SME sector, especially in tight-knit rural communities, this dimension can be particularly influential. Additionally, perceived behavioural control reflects the individual's belief in their capability to perform the behaviour, taking into account access to resources, knowledge, and institutional support (Ajzen, 1991). In tax matters, this might relate to understanding tax procedures, having digital literacy for online filing, or receiving timely assistance from tax officials. Where SMEs perceive high levels of difficulty in complying, intentions are weakened, regardless of their attitudes or social expectations (Mebratu, 2024).

The relevance of TPB to the present study lies in its ability to explain how internal beliefs and external support systems interact to influence tax behaviour. Thus, tax education enhances perceived behavioural control and shapes favourable attitudes by improving understanding and reducing fear or confusion (Mbilla et al., 2020; Hemeto et al., 2024). Meanwhile, quality tax service can reinforce these effects by making the compliance process easier, more transparent, and less intimidating (Yahaya et al., 2023; Kiptum et al., 2024). Therefore, TPB provides a strong theoretical foundation for examining how tax education and tax service quality contribute to compliance behaviour among SMEs. It also supports the assumption that service quality may moderate the relationship between education and compliance, particularly where institutional interactions help transform intention into action.

Empirical Review**Tax Education and Tax Compliance**

Tax education has long been recognised as a crucial factor in shaping taxpayer behaviour, particularly among small and medium-sized enterprises (SMEs), where knowledge gaps often contribute to unintentional non-compliance. A growing body of empirical research supports the view that tax knowledge enhances taxpayers' ability and willingness to comply with their obligations.

For instance, Mbilla et al. (2020), in a study conducted in Northern Ghana, found that SMEs with adequate knowledge of tax laws and procedures were more likely to determine their liabilities accurately and fulfil their obligations. Similarly, Soetjahyo et al. (2024) and Ratnawati et al. (2019) reported that tax awareness significantly predicts compliance and mediates the relationship between service quality, tax sanctions, and compliance outcomes. A study by Hemeto et al. (2024) also established that tax knowledge has a positive and significant effect on taxpayers' motivation to comply, suggesting that education serves as a catalyst in transforming awareness into behaviour. Reinforcing this, Franata and Khairudin (2025) identified effective tax education as one of the core contributors to tax compliance among vehicle owners in Indonesia. They noted that when taxpayers understand the procedures, sanctions, and obligations involved, they are more likely to fulfil their responsibilities voluntarily. The findings from Alam et al. (2024) further nuance the relationship by showing that tax education does not only influence tax compliance directly but also moderates the impact of broader tax system changes. In their study on tax modernization, tax awareness altered how taxpayers responded to policy reforms, indicating that education enhances adaptive compliance.

These studies consistently point to the importance of equipping taxpayers with the necessary knowledge and technical understanding of the tax system. Therefore, this study hypothesizes that:

H₁: Tax education has a significant positive effect on tax compliance behaviour among SMEs.

Quality of Tax Service and Tax Compliance

Beyond education, the quality of interactions between taxpayers and revenue authorities has emerged as a significant driver of compliance. Several studies have shown that when tax authorities are perceived as responsive, transparent, and respectful, taxpayers are more likely to engage with the system constructively.

For instance, Susuawu et al. (2020) demonstrated that service dimensions such as reliability, assurance, and empathy significantly enhance tax compliance behaviour among SMEs in Ghana. Likewise, Kiptum et al. (2024) found a strong positive relationship between tax service quality and compliance among SMEs in Kenya, highlighting that quality service can build trust and reduce resistance. This position is echoed by Putra et al. (2025), who showed that service quality had a direct and positive effect on motor vehicle tax compliance. Their findings suggest that when taxpayers receive timely, helpful, and clear assistance, they are more likely to comply voluntarily. Similarly, Rizkiani (2022) and Franata and Khairudin (2025) found that taxpayers were more responsive and accurate in fulfilling their tax duties when tax offices provided transparent information and swift service.

However, service quality is not uniformly effective across all settings. In Tanzania, Heriel and Vaishali (2024) observed that while tangible aspects of service delivery such as facilities and printed materials had a positive impact, service reliability and responsiveness showed no significant influence. This suggests that contextual factors, such as taxpayer expectations and administrative culture, may moderate the strength of the service and compliance relationship. Nonetheless, the general trend across multiple jurisdictions points to the conclusion that quality service delivery is a critical enabler of tax compliance, particularly for SMEs who often require direct support and clearer guidance from tax authorities. Therefore, this study hypothesizes that:

H₂: Tax service quality has a significant positive effect on tax compliance behaviour among SMEs.

Moderating Role of Quality of Tax Service

From the ongoing review, while both tax education and service quality individually affect tax compliance, emerging studies suggest that service quality may also act as a moderating factor, shaping how education influences compliance outcomes. In this view, tax education alone may not lead to behavioural change unless the taxpayer's engagement with the system is reinforced by helpful and efficient service experiences.

Empirical support for this view is provided by Yahaya et al. (2023) in Nigeria. In the Nigerian context, their study revealed that the quality of tax services played a critical moderating role between tax knowledge and taxpayers' willingness to comply with their obligations. In scenarios where service quality was high, the influence of tax education on compliance was strengthened, suggesting a synergistic relationship. Similarly, Roudlotui et al. (2024) reported that tax service quality positively moderated the impact of taxpayer awareness and tax sanctions on compliance. Interestingly, their study revealed that the quality of tax service in certain circumstances, weakened the link between knowledge and compliance, while, it enhanced the effects of sanctions and awareness, highlighting the complex nature of its role. Moreover, Kiptum et al. (2024) explored an extended model where service quality influenced trust in government, which in turn mediated the compliance relationship. Their results indicated that the conditional effect of service quality was stronger among taxpayers with a higher orientation toward social trust and fairness, further supporting the idea that service delivery not only shapes direct interactions but also the broader psychological environment within which tax decisions are made.

These findings imply that service quality may act as a facilitator that enables taxpayers to apply their knowledge effectively, especially in systems where administrative challenges and distrust are common. In such contexts, service quality becomes a behavioural bridge connecting what taxpayers know with how they act. Therefore, this study hypothesizes that:

H₃: Tax service quality plays a significant moderating role in the link between tax education and tax compliance behaviour among SMEs.

III. Methodology

This research adopted a quantitative approach, using a cross-sectional survey design. The quantitative method made it possible to objectively measure relationships among variables and apply statistical analysis to examine the moderating influence of tax service quality on the link between tax education and tax compliance behaviour. The cross-sectional survey was considered suitable because it facilitated the collection of data from many rural SMEs at a single point in time, regardless of their geographical spread. This made it possible to capture relevant perceptions and behaviours efficiently while ensuring that results could be generalised across a broader SME population (Saunders et al., 2023).

The study was conducted in the Kwahu West Municipality in the Eastern Region of Ghana, with a specific focus on small and medium-sized enterprises (SMEs) operating in rural communities within the municipality. The selection of Kwahu West Municipality as the study area was informed by the mixed patterns of tax compliance behaviour observed among SMEs in Ghana. As highlighted by Pefrah et al. (2021), while some small businesses intentionally underpay or evade taxes, others surprisingly end up paying more than their legal obligations. This paradox points to a complex landscape of tax knowledge, perceptions, and administrative interaction, particularly in regions where businesses may have limited access to professional advice or consistent service from tax authorities. Kwahu West presents a typical setting where such dynamics are likely to occur. The municipality includes both semi-urban and rural commercial centres, with a large concentration of informal and small enterprises that often lack structured financial systems or formal training in tax matters. In such contexts, compliance behaviour may be shaped not only by knowledge or willingness but also by the quality of service delivered by tax officials and the accessibility of information.

The 2024 Integrated Business Establishment Survey (IBES) conducted by the Ghana Statistical Service reports that, approximately 11,702 established businesses operate within the Kwahu West Municipality. For this study, the focus was narrowed to rural SMEs, which represent the municipality's informal and peripheral economic landscape. Drawing on the Krejcie and Morgan (1970) sample size determination framework, a minimum sample of 372 respondents was deemed sufficient for a population of this size. To enhance the reliability of findings and allow for potential non-responses, a total of 450 questionnaires were administered to SME operators in selected rural communities. Out of the distributed questionnaires, 381 were completed and deemed valid, giving a response rate of 84.7%. The achieved sample is adequate, as Hair et al. (2019) recommend between 350 and 500 cases for structural equation modelling with several latent variables. To ensure representativeness across the municipality's diverse rural communities, the study made use of a stratified random sampling approach. The municipality was first stratified into rural electoral areas, subsequently, simple random sampling was employed within each stratum to select SME respondents. This approach guaranteed that the final sample reflected the geographic and operational diversity of rural SMEs in the municipality.

Data were collected using a structured questionnaire. The instrument had four sections: demographic details, tax education, tax service quality, and tax compliance behaviour. The measures were based on established scales from previous studies but were adjusted to fit the Ghanaian SME context. Responses were captured on a five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). Before the main data collection began, the questionnaire was pre-tested with 30 SME operators to assess clarity and reliability. Revisions were made based on feedback, ensuring content validity and ease of understanding, especially for respondents with lower levels of formal education (Kuranchie, 2021). Data collection was carried out through face-to-face administration by the researcher and trained assistants, a strategy that improved response accuracy and completion rates.

Data analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0. The process was conducted in two stages. The first stage focused on the measurement model, where reliability and validity were assessed. To do this, factor loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) were examined for each construct, consistent with the guidelines proposed by Hair et al. (2022) and Henseler et al. (2009). Indicators with loadings below the acceptable threshold were deleted to enhance internal consistency and model fit.

In the next stage, the structural model was evaluated to assess the strength and significance of the proposed relationships. This step also tested the moderating role of tax service quality in the link between tax education and tax compliance behaviour. The analysis considered path coefficients, p-values, and R² values. The R² values indicated how much variance in the dependent variable was explained by the model. To establish statistical significance, bootstrapping with 5,000 resamples was performed. In addition, Variance Inflation Factors (VIF) were calculated to detect any multicollinearity among the predictor variables, thereby ensuring robustness in the model estimation.

To assess predictive relevance, the Q²_{predict} values were computed using the PLS Predict procedure in SmartPLS. Hair et al. (2022) notes that a Q²_{predict} value above zero demonstrates that a model possesses predictive relevance for the endogenous construct. In this study, this finding was reinforced by assessing the Root Mean Square Error (RMSE) and Mean Absolute Error (MAE), both of which confirmed the model's accuracy in predicting tax compliance outcomes.

IV. Results

Descriptive Statistics

This section presents the demographic characteristics of the respondents, including gender, age, educational level, sector of business operation, and years in operation (Table 1.0).

Table 1.0: Demographic Analysis (381)			
Variables	Items	Frequency	Percentage
Gender			
	Female	226	59.3
	Male	155	40.7
	Total	381	100
Age Range			
	Below 25 years	124	32.5
	25 to 35 years	185	48.6
	36 to 45 years	59	15.5
	Above 45 years	14	3.4
	Total	381	100
Educational Level			
	BECE/WASSCE	54	14.2
	Diploma	91	23.9
	Bachelors' Degree	116	30.4
	Masters	120	31.5
	Total	381	100
Sector of Business Operation			
	Agriculture	14	3.7
	Manufacturing	66	15.7
	Service	5	1.3
	Wholesale / Retail	302	79.3
	Total	381	100
Years of Operation			
	Less than 5years	24	6.3
	5 to 10 years	204	53.5
	11 to 15 years	82	21.5
	Above 15 years	71	18.6
	Total	381	100

Table 1.0 displays the demographic profile of the 381 respondents who participated in the study. Female participants made up the majority at 59.3%, while males accounted for 40.7%. The largest age group was between 25 to 35 years, representing 48.6% of the valid responses analysed. This was followed by those below 25 years (32.5%), 36 to 45 years (15.5%), and a small proportion aged above 45 (3.4%). Also, the educational qualifications varied across the respondents. Those with master's degrees formed the largest group at 31.5%, followed closely by bachelor's degree holders at 30.4%, diploma holders at 23.9%, and 14.2% with only BECE or WASSCE. Additionally, the business sector distribution showed a strong concentration in the wholesale and retail sector, which accounted for 79.3% of the total responses. Manufacturing businesses made up 15.7%, agriculture 3.7%, and service-based enterprises were the least represented at 1.3%. In terms of years in operation, a majority (53.5%) of businesses had been active for

5 to 10 years. Businesses operating for 11 to 15 years represented 21.5%, while those running for more than 15 years made up 18.6%. Only 6.3% of businesses had been in operation for less than 5 years, indicating that most of the enterprises were relatively mature.

Correlation Analysis

The correlation analysis shows the relationships among the main study variables: tax education (TE), tax service quality (TSQ), and tax compliance behaviour (TCB), (Table 2.0).

Table 2.0: Latent Variable Correlation			
	TCB	TE	TSQ
TCB	1.000	0.770	0.611
TE	0.770	1.000	0.569
TSQ	0.611	0.569	1.000

Table 2.0 presents the correlation matrix showing the relationships among tax compliance behaviour, tax education, and tax service quality. The results indicate a strong positive correlation of 0.770 between tax education and tax compliance behaviour. This suggests that as taxpayers become more educated about tax laws, procedures, and their obligations, their likelihood of complying with tax regulations increases significantly. A moderate positive correlation of 0.611 was also observed between tax service quality and tax compliance behaviour. This indicates that improved service delivery characterised by professionalism, accessibility, and responsiveness has a meaningful influence on taxpayers' willingness to comply. Furthermore, the correlation between tax education and tax service quality was 0.569, which also reflects a moderate positive relationship. This implies that better tax education is often accompanied by, or dependent on, the quality of interaction between tax authorities and taxpayers.

According to the guidelines by Hair et al. (2019), correlation coefficients above 0.70 indicate strong relationships, while values between 0.50 and 0.70 suggest moderate relationships. Based on this interpretation, the findings demonstrate that both tax education and tax service quality are positively associated with tax compliance behaviour, with tax education showing the strongest relationship. These results underscore the importance of a dual focus on educating taxpayers and improving the quality of services provided by tax institutions to enhance overall compliance.

Measurement Model Results

Before testing the structural model, the reliability and validity of the constructs were assessed through normality, reliability, and validity tests (Tables 3.0 - 9.0).

Table 3.0: Normality			
Indicators	Standard deviation	Excess kurtosis	Skewness
TE1	1.111	1.108	-1.290
TE2	1.036	1.757	-1.361
TE3	1.139	0.837	-1.225
TE4	1.390	-1.194	-0.344
TE5	1.053	1.970	-1.502
TCB1	1.073	1.044	-1.194
TCB2	1.033	2.505	-1.622
TCB3	1.112	0.572	-1.062
TCB4	1.062	0.701	-1.074
TCB5	1.031	1.421	-1.251
TSQ1	1.176	-0.401	-0.681
TSQ2	1.232	-0.688	-0.573
TSQ3	1.094	-0.091	-0.753
TSQ4	1.176	-0.520	-0.591
TSQ5	0.992	2.562	-1.573

Table 3.0 presents the skewness and excess kurtosis values for all observed indicators used in the study. According to Hair et al. (2022), skewness values between -1 and +1 indicate an excellent level of symmetry, while values between -2 and +2 are considered acceptable. For kurtosis, values exceeding +2 suggest a distribution that is too peaked, while values below -2 indicate a distribution that is overly flat. As shown in the table, the skewness values for most indicators range between -0.344 and -1.622, falling within the acceptable range of -2 to +2. Although negatively skewed, these results indicate only moderate asymmetry in the distribution. In terms of kurtosis, most indicators also fall within the acceptable range. However, two items TCB2 (2.505) and TSQ5 (2.562) exceed the +2 threshold, suggesting that responses for these items are more peaked than normal. Despite this, the overall pattern of skewness and kurtosis values supports the assumption that the data are sufficiently normal for further analysis.

Table 4.0: Fornell Lacker Criterion			
	TCB	TE	TSQ
TCB	0.839		
TE	0.770	0.846	
TSQ	0.611	0.569	0.747

Table 4.0 reports the Fornell-Larcker Criterion results, which were used to evaluate the discriminant validity of the constructs, thustax compliance behaviour, tax education, and tax service quality. Fornell and Larcker (1981) suggest that discriminant validity is achieved when the square root of the Average Variance Extracted (AVE) for a construct is greater than its correlations with other constructs in the model. As presented in Table 4.0, the square root of the AVE for tax compliance behaviour is 0.839, exceeding its correlations with tax education (0.770) and tax service quality (0.611). Likewise, the AVE square root for tax education is 0.846, which is higher than its correlations with tax compliance behaviour (0.770) and tax service quality (0.569). For tax service quality, the AVE square root is 0.747, also greater than its correlations with tax compliance behaviour (0.611) and tax education (0.569). These findings indicate that each construct shares more variance with its own items than with other constructs, thereby confirming discriminant validity.

Table 5.0: Heterotrait-Monotrait Ratio (HTMT)			
	TCB	TE	TSQ
TCB			
TE	0.872		
TSQ	0.649	0.601	

Table 5.0 presents the Heterotrait-Monotrait Ratio (HTMT), which is another way used to assess discriminant validity by measuring the degree of similarity between constructs. According to Henseler et al. (2015), discriminant validity is confirmed when HTMT values between constructs remain below the threshold of 0.90. As shown in the table, the HTMT value between tax compliance behaviour and tax education is 0.872, which is within the acceptable range, although approaching the upper limit. The HTMT value between tax compliance behaviour and tax service quality is 0.649, and between tax education and tax service quality is 0.601. Both values are well below the 0.90 threshold. These results confirm that all three constructs, thus, tax compliance behaviour, tax education, and tax service quality are empirically distinct. The results confirm that the model satisfies the discriminant validity criterion.

Table 6.0: Cross Loading			
	TCB	TE	TSQ
TCB1	0.833	0.617	0.543
TCB2	0.830	0.692	0.527
TCB3	0.831	0.634	0.480
TCB4	0.850	0.614	0.497
TCB5	0.849	0.664	0.512
TE1	0.641	0.856	0.501
TE2	0.679	0.866	0.493
TE3	0.654	0.837	0.448
TE5	0.631	0.826	0.484

TSQ1	0.380	0.349	0.767
TSQ2	0.350	0.299	0.758
TSQ3	0.336	0.278	0.769
TSQ4	0.396	0.345	0.727
TSQ5	0.636	0.640	0.711

To further assess discriminant validity, Table 6.0 displays the cross-loading values for the measurement items associated with tax compliance behaviour, tax education, and tax service quality. As noted by Hair et al. (2017), discriminant validity holds when each indicator shows a stronger loading on its associated construct than on any alternative construct. The results confirm this condition. All five indicators measuring tax compliance behaviour (TCB1 to TCB5) load highest on their own construct, with values ranging from 0.830 to 0.850, compared to noticeably lower loadings on tax education and tax service quality. For example, TCB4 loads at 0.850 on tax compliance behaviour, while its loadings on tax education and tax service quality are 0.614 and 0.497, respectively. Similarly, indicators measuring tax education (TE1, TE2, TE3, TE5) each exhibit higher loadings on their own construct than on the others. TE2, for instance, loads at 0.866 on tax education, compared to 0.679 on tax compliance behaviour and 0.493 on tax service quality. The same pattern is observed for tax service quality indicators (TSQ1 to TSQ5), which load highest on their own construct. TSQ3, for example, records a loading of 0.769 on tax service quality, clearly exceeding its loadings on tax compliance behaviour (0.336) and tax education (0.278). These cross-loading results demonstrate that each item is more closely related to its intended latent construct than to any other, thereby confirming the discriminant validity of all constructs included in the model.

Table 7.0: Collinearity Statistics (VIF)	
Indicators	VIF
TCB1	2.194
TCB2	2.090
TCB3	2.188
TCB4	2.412
TCB5	2.358
TE1	2.204
TE2	2.310
TE3	2.081
TE5	1.957
TSQ1	2.039
TSQ2	2.134
TSQ3	2.167
TSQ4	1.581
TSQ5	1.167

Table 7.0 displays the Variance Inflation Factor (VIF) values for all indicators in the measurement model. Hair et al. (2022) suggests that VIF values below 3.3 indicate no collinearity concerns, whereas values exceeding 5.0 may point to multicollinearity problems that could bias regression results. As presented in the table, all VIF values fall between 1.167 and 2.412, which are below the 3.3 benchmark, confirming the absence of multicollinearity issues in the model. This suggests that the indicators are not excessively correlated, and that collinearity does not pose a threat to the stability or interpretability of the model estimates. These results confirm that multicollinearity is within acceptable limits, and the model meets the collinearity assumption required for structural equation modelling.

Table 8.0: Construct Reliability and Validity				
Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Tax Compliance Behaviour	0.895	0.895	0.922	0.703

Tax Education	0.868	0.869	0.910	0.716
Tax Service Quality	0.814	0.847	0.863	0.558

Table 8.0 reports the reliability and validity statistics for the three constructs, tax compliance behaviour, tax education, and tax service quality. Hair et al. (2024) recommends that Cronbach's alpha and composite reliability values of 0.70 or above demonstrate satisfactory internal consistency. In addition, convergent validity is considered adequate when the Average Variance Extracted (AVE) reaches a minimum threshold of 0.50. From the results, all three constructs meet or exceed the required threshold for reliability. Tax compliance behaviour shows strong internal consistency with a Cronbach's alpha of 0.895, ρ_a of 0.895, and composite reliability (ρ_c) of 0.922. Tax education also demonstrates high reliability, with values of 0.868 for Cronbach's alpha, 0.869 for ρ_a , and 0.910 for ρ_c . Similarly, tax service quality shows satisfactory reliability with a Cronbach's alpha of 0.814, ρ_a of 0.847, and ρ_c of 0.863. In addition, for convergent validity, the AVE values for all constructs were above the minimum benchmark of 0.50. Tax compliance behaviour and tax education both exhibit strong AVE values of 0.703 and 0.716 respectively, while tax service quality records an AVE of 0.558. The results indicate that each construct accounts for a sufficient proportion of variance in its respective indicators. Consequently, the measurement model demonstrates strong reliability and adequate convergent validity, consistent with the benchmark criteria outlined by Hair et al. (2024)

Constructs	Indicators	Outer loadings
Tax Education	TE1	0.856
	TE2	0.866
	TE3	0.837
	TE4	Deleted
	TE5	0.826
Tax Service Quality	TSQ1	0.767
	TSQ2	0.758
	TSQ3	0.769
	TSQ4	0.727
	TSQ5	0.711
Tax Compliance Behaviour	TBC1	0.833
	TCB2	0.830
	TCB3	0.831
	TCB4	0.850
	TCB5	0.849

Table 9.0 reports the outer loadings of the measurement indicators for tax education, tax service quality, and tax compliance behaviour. As noted by Hair et al. (2024), indicator reliability is established when the loading value is 0.70 or higher, indicating that the construct accounts for at least 50% of the indicator's variance. Indicators with loadings below this threshold may be considered for removal if their exclusion enhances the overall quality of the model. All retained indicators in this study meet the recommended threshold. For tax education, the retained items [TE1 (0.856), TE2 (0.866), TE3 (0.837), and TE5 (0.826)] demonstrate strong loadings, indicating that each item reliably reflects the underlying construct. TE4 was deleted due to insufficient loading or weak contribution to construct validity. For tax service quality, all five indicators exceed the 0.70 threshold, with loadings ranging from 0.711 to 0.769. This shows that the indicators consistently measure perceptions of service quality. Similarly, the indicators for tax compliance behaviour also perform strongly, with loadings ranging from 0.830 to 0.850, confirming high reliability of the items in capturing compliance behaviour among SMEs. Summarily, the results confirm that all retained indicators demonstrate strong individual reliability and contribute meaningfully to the measurement of their respective constructs.

PLS-SEM Structural Model Findings

The structural model was evaluated to examine the hypothesized relationships among tax education, tax service quality, and tax compliance behaviour, including the moderating effect of service quality (Figure 1.0; Tables 10.0 -14.0).

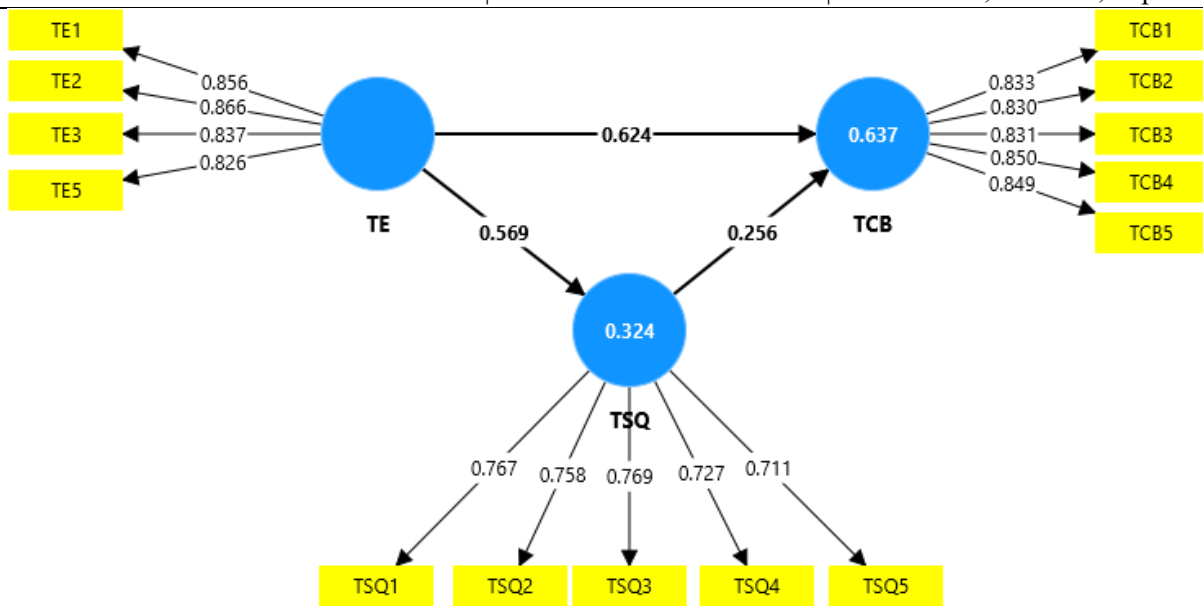


Figure 1.0: Structural Equation Model

Table 10.0: Model Fit Assessment		
Description	Saturated model	Estimated model
SRMR	0.098	0.098
d_ ULS	1.014	1.014
d_ G	0.213	0.213
Chi-square	473.265	473.265
NFI	0.850	0.850

Table 10.0 presents the model fit statistics for both the saturated and estimated models, providing insights into how well the proposed structural model reflects the observed data. The reported model fit statistics include the Standardized Root Mean Square Residual (SRMR), squared Euclidean distance (d_ ULS), geodesic distance (d_ G), Chi-square, and the Normed Fit Index (NFI). As outlined by Hair et al. (2021) and Hu and Bentler (1999), an SRMR value at or below 0.08 reflects a good fit, while values between 0.08 and 0.10 are typically regarded as acceptable, particularly in exploratory or applied research. A value above 0.10, however, signals poor fit. In this analysis, the SRMR is 0.098 for both the saturated and estimated models. Although slightly higher than the ideal cut-off, it remains within the acceptable range, pointing to a reasonably adequate model fit. The d_ ULS and d_ G values, recorded at 1.014 and 0.213 respectively, capture the level of discrepancy between the observed and model-implied correlation matrices. When considered alongside the other indices, these relatively low values indicate minimal approximation error, thereby reinforcing the model's adequacy. The Chi-square statistic of 473.265, observed across both models, is less informative on its own due to its sensitivity to sample size (Kline, 2015), and should therefore be interpreted in combination with other fit measures. Finally, the NFI of 0.850 surpasses the recommended minimum benchmark of 0.80 (Bentler, 1990), lending further support to the model's overall fit. This indicates a meaningful improvement of the estimated model over a null model with no relationships among constructs. Taken together, the model fit indices support the conclusion that the structural model provides an acceptable representation of the observed data, with consistent values across both the saturated and estimated models confirming its stability.

Table 11.0: Total Effect Analysis			
Hypothesis	Coefficient	T statistics	P values
Tax Education -> Tax Compliance Behaviour	0.770	21.035	0.000
Tax Education -> Tax Service Quality	0.569	12.799	0.000
Tax Service Quality -> Tax Compliance Behaviour	0.256	4.699	0.000

Table 11.0 presents the total effects of the structural model paths, reflecting the overall influence of each predictor on the dependent variables, including both direct and indirect effects. According to Hair et al. (2022), At a 5% significance level, statistical significance is achieved when the t-statistic is greater than 1.96 and the p-value is below 0.05. The analysis demonstrates that tax education has a strong and positive impact on tax compliance behaviour, as indicated by a path coefficient of 0.770, a t-statistic of

21.035, and a p-value of 0.000. These results confirm that improving tax education markedly enhances the compliance behaviour of small and medium-sized enterprises. Additionally, tax education also shows a significant positive effect on tax service quality (coefficient = 0.569, $t = 12.799$, $p = 0.000$), suggesting that better-informed taxpayers tend to perceive or experience higher-quality interactions with tax authorities. Finally, the total effect of tax service quality on tax compliance behaviour is also positive and significant (coefficient = 0.256, $t = 4.699$, $p = 0.000$), indicating that improvements in service delivery directly contribute to enhanced compliance outcomes. These results highlight the importance of both tax education and service quality in promoting compliance and suggest that education not only influences compliance directly but also enhances perceptions of service quality, which in turn supports better tax behaviour.

Table 12.0 Specific Indirect Effect			
Hypothesis	Coefficient	T statistics	P values
Tax Education -> Tax Service Quality -> Tax Compliance Behaviour	0.146	4.760	0.000

Table 12.0 presents the specific indirect effect of tax education on tax compliance behaviour as influenced by the moderating role of tax service quality. As outlined by Hair et al. (2022), moderation is statistically significant when the t-statistic exceeds 1.96 and the p-value is less than 0.05, showing that the strength or direction of a relationship changes in the presence of another variable. Therefore, the findings indicate that tax service quality significantly strengthens the relationship between tax education and tax compliance behaviour, with a moderating effect coefficient of 0.146, a t-statistic of 4.760, and a p-value of 0.000. This demonstrates that the influence of tax education on compliance behaviour becomes more pronounced when tax services are delivered effectively. Practically, this highlights that tax education on its own may be insufficient unless complemented by high-quality service experiences. High-quality interactions with tax authorities, characterised by professionalism, responsiveness, and clarity amplify the influence of education, making taxpayers more likely to comply.

Table 13.0: R Squared (Endogenous Variable)		
	R-square	R-square adjusted
Tax Compliance Behaviour	0.637	0.635

Table 13.0 shows the R-squared values for the endogenous construct, namely tax compliance behaviour. As explained by Hair et al. (2022), R-squared (R^2) represents the proportion of variation in the dependent variable that is accounted for by its predictors. Conventionally, values of 0.75, 0.50, and 0.25 are interpreted as substantial, moderate, and weak explanatory power, respectively. Therefore, the results indicate that the R-squared value for tax compliance behaviour is 0.637, with an adjusted R-squared of 0.635. This means that tax education and tax service quality together account for about 63.7% of the variation in tax compliance behaviour among SMEs. This reflects a moderate to substantial explanatory power, indicating that the model performs well in capturing the key factors influencing compliance behaviour

Table 14.0 Predictive Relevance			
	Q^2_{predict}	RMSE	MAE
Tax Compliance Behaviour	0.589	0.648	0.480

Table 14.0 presents the predictive relevance statistics for the model, focusing on tax compliance behaviour as the endogenous construct. Hair et al. (2022) points out that a Q^2 value above zero demonstrates that the model possesses predictive relevance for the specified endogenous construct. In addition, the Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE) are used to assess the accuracy of prediction, with lower values indicating better predictive performance. The Q^2 value for tax compliance behaviour is 0.589, which is well above zero and reflects strong predictive relevance. This confirms that the model has a high capability to predict tax compliance behaviour among SMEs. The RMSE and MAE values are 0.648 and 0.480, respectively. These scores indicate a reasonable level of predictive accuracy, with relatively low error margins between the predicted and actual values. Collectively, these outcomes suggest that the model is both statistically sound and reliable in predicting future patterns of tax compliance behaviour.

V. Discussion of Result

This study set out to examine how tax service quality moderates the relationship between tax education and tax compliance behaviour among small and medium-sized enterprises in rural parts of Ghana. Specifically, the study examined whether tax education significantly influences compliance behaviour, whether tax service quality independently contributes to compliance, and whether service quality strengthens or weakens the impact of education on tax compliance.

First, the results of the study revealed a strong and statistically significant positive relationship between tax education and tax compliance behaviour among SMEs. With a coefficient of 0.770 and a p-value of 0.000, the findings clearly show that when SMEs are well-educated on tax laws, reporting procedures, and their obligations, they are more likely to comply. This result is in alignment

with the findings of Mbilla et al. (2020), who observed that adequate tax education increases technical understanding and regulatory awareness among taxpayers in Northern Ghana. Similarly, Ratnawati et al. (2019) and Soetjahyo et al. (2024) emphasized that education strengthens tax awareness, which directly contributes to compliance. The implication of this result is clear: SMEs equipped with accurate tax knowledge are more capable of fulfilling their obligations. However, education alone may not be sufficient if it is not delivered in ways that are accessible, understandable, and relevant to the specific challenges SMEs face. From the perspective of the Theory of Planned Behavior, tax education shapes taxpayers' attitudes by influencing their beliefs about compliance, strengthens subjective norms by aligning them with expected behaviour, and enhances perceived behavioural control by equipping them with the knowledge to comply effectively. This explains why better-educated SMEs are more inclined to fulfil their tax obligations.

The study also established that tax service quality positively influences tax compliance behaviour, with a path coefficient of 0.256 and a p-value of 0.000. This result emphasizes the critical role that service delivery plays in shaping taxpayer attitudes and behaviours. It aligns with the findings of Susuawu et al. (2020), Hoang et al. (2024), and Putra et al. (2025), who all report that high-quality service marked by reliability, responsiveness, and empathy fosters trust and encourages voluntary compliance. Similarly, Kiptum et al. (2024) and Franata and Khairudin (2025) observed that service characteristics such as transparency, timely support, and respectful engagement significantly contribute to improved compliance outcomes. However, these findings diverge from those of Heriel and Vaishali (2024), whose study in Tanzania found that certain dimensions of service quality, particularly reliability and responsiveness, did not significantly influence compliance among presumptive taxpayers. This contrast may reflect contextual differences such as taxpayer types, the degree of informality in business operations, or the quality of tax administration across countries. In Ghana, many SMEs face bureaucratic inefficiencies, unclear procedures, and limited access to support. In such settings, even modest improvements in service delivery can have considerable impact. Taxpayers who experience clear communication, efficient processing, and respectful treatment are more likely to comply (Bawa & Boachie, 2024). Therefore, service quality is not merely an administrative function but a strategic lever for strengthening compliance, particularly in environments where trust in institutions is fragile. This is consistent with TPB, where good service enhances perceived behavioural control and reinforces the subjective norms that encourage compliance. It also resonates with the Slippery Slope Framework proposed by Kirchler, Hoelzl, and Wahl (2008), which argues that compliance is shaped by both trust in tax authorities and the power of enforcement. In this context, high-quality service fosters trust, making compliance more voluntary rather than enforced.

Moreover, the outcome of the investigation brought to light, enough evidence that quality of tax service moderates the link between tax education and tax compliance behaviour, evident by a coefficient of 0.146 and a p-value of 0.000. This implies that the effect of tax education on compliance is stronger when SMEs also experience high-quality service from tax authorities. In other words, even when SMEs are well-informed, their likelihood of complying improves further when tax officers are supportive, professional, and responsive. This outcome of the study is consistent with the work of Yahaya et al. (2023) in Nigeria, who reported that quality of tax service significantly strengthened the effect of tax knowledge on voluntary tax compliance. Similarly, Kiptum et al. (2024) demonstrated that trust-building through good service delivery plays an important role in influencing tax behaviour. This reinforces the argument by Augustine et al. (2020) that poor tax service delivery characterised by delays, limited engagement, and a lack of digital accessibility can diminish the effectiveness of even the best educational programs. This work advances understanding in the field by confirming, in the Ghanaian SME context, that education alone is not enough. When tax services are accessible, helpful, and efficient, taxpayers are more likely to act on the knowledge they acquire. Conversely, if the service experience is marked by confusion or frustration, the benefits of education may be lost. Within the TPB lens, this moderating role of service quality reflects how institutional support strengthens perceived behavioural control, thereby amplifying the effect of attitudes shaped by education. At the same time, the result also aligns with the Fischer Model of Tax Compliance ((Fischer, Wartick, & Mark, 1992), which highlights how psychological (attitudes), social (norms), and structural (institutional factors such as service quality) elements interact to shape compliance. Combining tax education with effective service delivery help to address both the psychological and institutional dimensions of compliance.

VI. Conclusion

Research into the institutional and administrative factors influencing tax compliance, especially among SMEs in Ghana, is still developing. This study adds to the discussion by investigating how tax service quality moderates the relationship between tax education and tax compliance behaviour. The results show that tax education strongly and positively affects SME operators' compliance, supporting the view that well-informed taxpayers are more likely to understand and fulfil their tax obligations. Similarly, quality of tax service turned to have a significant independent effect on compliance, suggesting that the professionalism, accessibility, and responsiveness of tax officials play a key role in shaping taxpayers' behaviour. More importantly, the study revealed that tax service quality significantly moderates the relationship between tax education and compliance behaviour. This indicates that even when taxpayers are educated about their obligations, the presence of high-quality service delivery strengthens the effect of that education and increases the likelihood of compliance. In contrast, where service delivery is poor, the impact of education may be weakened. This insight highlights the importance of not only providing tax knowledge but also ensuring that such knowledge is supported by a positive taxpayer experience. With an R-squared value of 63.7%, the model demonstrates substantial explanatory power, while the Q^2 predictive relevance statistic of 0.589 confirms the model's ability to predict tax compliance behaviour among SMEs. These findings carry practical implications: tax authorities must invest in both taxpayer education and the improvement of service quality to achieve meaningful and sustained improvements in compliance. It is recommended that tax education be integrated into entrepreneurship training and business development programs, especially those targeting SMEs.

Additionally, improving tax service touchpoints such as assistance during filing, clarity of information, and prompt support could further enhance compliance. Ultimately, the synergy between what taxpayers know and how they are treated by tax authorities will continue to be a decisive factor in the effectiveness of Ghana's tax compliance strategies.

Limitation of the Study

While the study provides important insights into the role of tax education and service quality in shaping SME compliance behaviour, some limitations must be acknowledged. The sample was heavily skewed toward wholesale and retail enterprises, which accounted for almost 80 percent of the respondents. SMEs from other key sectors such as manufacturing, agriculture, and services were underrepresented. This imbalance limits the extent to which the findings can be generalized across the wider SME population in Ghana. Future research should therefore adopt a more balanced sampling approach that captures the diversity of SME sectors.

Data Availability Statement

The datasets used and analysed during the current study are available from the corresponding author on reasonable request. The dataset was collected through structured questionnaires administered to SME operators in rural communities within the Kwahu West Municipality. Due to ethical considerations and confidentiality agreements with participants, the data are not publicly available but can be shared in anonymized form for academic and non-commercial purposes.

Disclosure Statement

The author affirms that there are no conflicts of interest, whether financial, professional, or personal that might have impacted this study in any way.

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