

DETERMINANTS OF VALUE ADDED TAX (VAT) COMPLIANCE AMONG SMALL AND MEDIUM ENTERPRISES IN THE HOSPITALITY INDUSTRY IN ABUJA, NIGERIA

Nuhu Umar^{1*}

Department of accounting and Finance
Baze University Abuja
nuhu.umar@bazeuniversity.edu.ng

DOI: 10.64290/aijpam.v3.i3.29

Abstract

This study examined the determinants of Value Added Tax (VAT) compliance among small and medium-sized enterprises (SMEs) in Abuja's hospitality industry, Nigeria. The study was motivated by persistent concerns regarding low VAT compliance among SMEs despite continuous tax reforms and digitalisation initiatives introduced by the Federal Inland Revenue Service (FIRS). Specifically, the study investigated the influence of tax knowledge, perceived fairness of the tax system, taxpayer attitude, and access to tax services on VAT compliance behaviour. The study adopted a quantitative explanatory research design using primary data collected through structured questionnaires administered to SMEs operating within Abuja's hospitality sector, including hotels, restaurants, guest houses, and event centres. Out of 348 distributed questionnaires, 300 valid responses were retrieved and analysed using descriptive statistics, Pearson Product Moment Correlation, and Ordinary Least Squares (OLS) multiple regression analysis. The findings revealed that although respondents generally possessed substantial VAT knowledge and positive perceptions regarding tax fairness and compliance obligations, none of the explanatory variables significantly influenced VAT compliance. The regression results showed that tax knowledge, perceived fairness, taxpayer attitude, and access to tax services collectively explained only 0.7% of the variation in VAT compliance ($R^2 = 0.007$; $F = 0.506$; $p > 0.05$). The study concludes that VAT compliance among hospitality SMEs in Abuja is influenced more by institutional and structural factors than by behavioural variables alone. The study recommends simplified VAT procedures, transparent enforcement mechanisms, improved digital tax systems, and enhanced institutional accountability to strengthen voluntary tax compliance among SMEs in Nigeria.

Keywords: Value Added Tax (VAT), Tax Compliance, Small and Medium-Sized Enterprises (SMEs), Tax Knowledge, Perceived Fairness, Tax Administration.

INTRODUCTION

Taxation is an important fiscal instrument for revenue mobilisation, financing public expenditure, promoting economic development, and maintaining fiscal stability. In developing economies such as Nigeria, strengthening domestic tax revenue has become increasingly important because of the need to reduce dependence on volatile oil revenue and provide sustainable funding for infrastructure and public services. Within this framework, Value Added Tax (VAT) has emerged as an important source of non-oil revenue because of its broad consumption base and revenue-generating potential (OECD, 2022).

VAT was introduced in Nigeria in 1994 following the enactment of the Value Added Tax Act and has since become an important component of government revenue. Successive reforms in tax

administration have sought to improve taxpayer registration, filing, payment, monitoring, and enforcement, particularly through the increasing use of digital tax administration systems. However, the effectiveness of VAT depends considerably on taxpayers' willingness and ability to comply with statutory requirements. VAT compliance involves proper registration, accurate recording of taxable transactions, correct computation of liabilities, timely filing of returns, and remittance of the appropriate amount of tax. Failure to fulfil these obligations creates a gap between potential and actual government revenue.

VAT compliance is particularly important among Small and Medium-sized Enterprises (SMEs), which constitute a significant component of Nigeria's economic activities. SMEs contribute to employment, entrepreneurship, innovation, and income generation but frequently possess limited administrative capacity, less sophisticated accounting systems, and inadequate specialised tax personnel. These characteristics can create difficulties in understanding and fulfilling tax obligations. Oladipupo and Obazee (2016) found that tax knowledge significantly influences tax compliance among SMEs in Nigeria, suggesting that inadequate understanding of tax requirements can contribute to non-compliance. Similarly, Ellawule et al. (2024) reported that tax knowledge significantly affects tax compliance among Nigerian micro, small, and medium enterprises.

The compliance challenge may be particularly significant within the hospitality industry. Hospitality SMEs, including hotels, restaurants, guest houses, lounges, catering businesses, and event centres, typically undertake frequent transactions with final consumers through cash, point-of-sale terminals, electronic transfers, and other payment channels. The high volume and frequency of transactions increase the importance of effective accounting systems and proper documentation. Where record-keeping practices are inadequate, determining taxable transactions and accurately fulfilling VAT obligations may become difficult. Consequently, findings obtained from general SME populations may not adequately explain VAT compliance among hospitality businesses because industries differ in transaction patterns, accounting practices, customer relationships, and levels of informality.

Abuja provides an important context for investigating VAT compliance within the hospitality industry. As Nigeria's Federal Capital Territory, Abuja combines administrative, commercial, diplomatic, tourism, conference, and social activities that create substantial demand for hospitality services. Its concentration of hotels, restaurants, guest houses, lounges, catering businesses, and event centres generates significant taxable economic activities. Understanding the factors influencing VAT compliance among these businesses is therefore important for strengthening revenue mobilisation and developing effective sector-specific tax administration strategies.

Tax compliance behaviour is influenced by both behavioural and institutional factors. The Theory of Planned Behaviour developed by Ajzen (1991) suggests that behaviour is influenced by behavioural intentions, which are shaped by attitudes, subjective norms, and perceived behavioural control. Applied to taxation, the theory suggests that taxpayers' knowledge, attitudes, and perceptions can influence their willingness to comply with tax obligations. Institutional perspectives complement this explanation by emphasising the role of regulatory structures, administrative arrangements, institutional legitimacy, and taxpayers' interactions with public authorities. Feld and Frey (2010) argue that the relationship between taxpayers and tax authorities extends beyond enforcement because institutional legitimacy, respectful treatment, and perceptions of fairness can influence voluntary compliance.

Tax knowledge is therefore important because it enables SME operators to understand VAT registration, record keeping, computation, filing, and remittance requirements. However, knowledge alone may not guarantee compliance. Perceived fairness of the tax system can influence whether taxpayers consider their obligations legitimate and equitable. Where businesses perceive tax administration as transparent, consistent, and fair, voluntary compliance may improve, while perceptions of unequal treatment, corruption, or arbitrary enforcement may reduce compliance motivation. Taxpayer attitude is similarly important because favourable attitudes towards taxation may encourage voluntary compliance, whereas negative perceptions of government performance and the tax system may discourage it (Kirchler, 2007).

Access to tax services represents an important institutional factor. Taxpayer education, digital registration and filing platforms, advisory services, help desks, electronic payment facilities, and administrative assistance can reduce the difficulties and costs associated with compliance. Effective access to these services may therefore improve SMEs' capacity to fulfil their VAT obligations. Nevertheless, limited awareness, technological challenges, administrative complexity, and inadequate taxpayer support can constrain their effectiveness.

Existing empirical evidence demonstrates that the determinants of tax compliance remain diverse. Oladipupo and Obazee (2016) emphasised tax knowledge and penalties, while Ojo and Shittu (2023) found that taxpayers' perceptions and attitudes, organisational characteristics, compliance costs, and VAT implementation efficacy influence VAT compliance among Nigerian SMEs.

This study addresses these limitations by integrating the Theory of Planned Behaviour and Institutional Theory to provide a broader explanation of VAT compliance among hospitality SMEs in Abuja. This integrated approach contributes beyond merely addressing a geographical gap by providing sector-specific empirical evidence and combining behavioural and institutional explanations of compliance. From a policy perspective, the findings can assist tax authorities in determining whether improvements in VAT compliance require greater taxpayer education, enhanced perceptions of fairness, improved taxpayer attitudes, better access to tax services, or a combination of these interventions.

Therefore, this study addresses these identified empirical, contextual, methodological, and theoretical gaps by examining the determinants of VAT compliance among SMEs in the hospitality industry in Abuja, Nigeria. Specifically, the study investigates the effects of tax knowledge, tax administration efficiency, tax compliance cost, and tax enforcement on VAT compliance. By integrating behavioural and institutional factors within a single empirical framework and focusing specifically on hospitality SMEs in Abuja, the study seeks to provide a more comprehensive understanding of VAT compliance behaviour and generate evidence that may support more effective tax administration and compliance strategies.

1.2 Objectives of the Study

The broad objective of this study is to assess the determinants of VAT compliance among SMEs in the hospitality industry in Abuja, Nigeria.

The specific objectives are to:

- i. examine the effect of tax knowledge on VAT compliance among hospitality SMEs in Abuja;
- ii. determine the influence of perceived fairness of the tax system on VAT compliance among hospitality SMEs in Abuja;

- iii. assess the effect of taxpayer attitude on VAT compliance among hospitality SMEs in Abuja; and

Conceptual Review

Concept of Value Added Tax

Value Added Tax is a consumption-based indirect tax imposed on taxable goods and services. The tax is generally applied to value created at different stages in the production and distribution process, while its ultimate economic burden is ordinarily transferred to the final consumer. VAT has become an important revenue instrument because of its relatively broad tax base and capacity to capture economic activities across different sectors.

In Nigeria, VAT was introduced in 1994 following the Value Added Tax Act. Since its introduction, it has become an important component of non-oil tax revenue. VAT administration requires eligible businesses to fulfil statutory responsibilities relating to registration, documentation of taxable transactions, computation of tax liabilities, filing of returns, and remittance of tax collected.

The structure of VAT creates a distinctive compliance relationship between taxpayers and tax authorities. Businesses involved in taxable transactions effectively perform an intermediary function in the tax collection process. Consequently, weak accounting systems, poor documentation, misunderstanding of tax requirements, deliberate underreporting, or failure to remit collected taxes can reduce the effectiveness of the VAT system.

VAT compliance among SMEs therefore deserves particular attention because many smaller businesses may not possess the sophisticated accounting systems, professional tax personnel, or administrative resources available to large corporations. Ojo and Shittu (2023) found that VAT compliance among Nigerian SMEs is influenced by several factors, including taxpayers' perceptions and attitudes, organisational characteristics, compliance costs, and VAT implementation efficacy. Their findings demonstrate that VAT compliance is multidimensional and cannot adequately be explained by a single economic or behavioural factor.

Concept of Tax Compliance

Tax compliance generally describes the extent to which taxpayers fulfil their obligations in accordance with applicable tax laws and administrative requirements. It includes registration with the appropriate tax authority, accurate disclosure of taxable activities, maintenance of relevant records, correct computation of liabilities, timely submission of returns, and payment or remittance of taxes when due. Tax compliance may be voluntary or enforced. Voluntary compliance occurs when taxpayers fulfil their obligations without direct coercion, while enforced compliance results substantially from audits, penalties, monitoring, and the perceived probability of detection. Kirchler (2007) argues that tax behaviour cannot be adequately understood solely through economic deterrence because psychological factors, perceptions, attitudes, social norms, and relationships with tax authorities also affect taxpayers' decisions. Compliance therefore represents both a behavioural and institutional phenomenon. From the behavioural perspective, taxpayers may comply because they possess adequate tax knowledge, maintain positive attitudes towards taxation, perceive the system as fair, or consider payment of taxes a legitimate civic responsibility. From the institutional perspective, compliance may depend on the accessibility and efficiency of tax administration, quality of taxpayer services, enforcement arrangements, and taxpayers' confidence in institutions.

VAT Compliance

VAT compliance is a specific dimension of tax compliance involving taxpayers' adherence to statutory VAT requirements. It encompasses proper registration, accurate identification and recording of taxable transactions, correct calculation of VAT liabilities, timely submission of VAT returns, and appropriate remittance. VAT compliance can therefore be considered multidimensional. A business may be registered for tax purposes but still fail to maintain accurate records or remit the correct amount. Similarly, a taxpayer may calculate VAT correctly but file returns after the prescribed period. Effective measurement of VAT compliance should consequently recognise the different dimensions of compliant behaviour rather than relying solely on whether a business is registered. Ojo and Shittu (2023) examined VAT compliance among SMEs in Nigeria and considered taxpayer perceptions and attitudes, organisational characteristics, compliance costs, VAT implementation efficacy, and firm characteristics. Their approach demonstrates that compliance reflects both the internal characteristics of businesses and the external environment within which VAT is administered. For the present study, VAT compliance refers to the extent to which hospitality SMEs fulfil their VAT-related responsibilities through proper registration where applicable, maintenance of relevant transaction records, accurate reporting of taxable activities, timely filing, and correct remittance.

Small and Medium-sized Enterprises and VAT Compliance

SMEs play an important role in employment creation, entrepreneurship, innovation, income generation, and economic development. However, SMEs are heterogeneous in terms of size, industry, accounting sophistication, ownership structure, technological capability, and degree of formality. These differences can significantly affect tax compliance. Compared with large organisations, SMEs may have fewer professional accountants and tax specialists and may rely extensively on owner-managers for accounting and financial decisions. Where tax knowledge is inadequate, compliance requirements may be misunderstood. Similarly, inadequate record keeping may create difficulties in identifying taxable transactions and determining the correct tax liability. Bello et al. (2024) examined micro and small enterprises in Gombe State and found that tax knowledge had a significant positive effect on tax compliance behaviour. The study also established that record-keeping practice moderated the relationship between tax knowledge and tax compliance. This is particularly important to SMEs because adequate knowledge may translate more effectively into compliance where businesses possess appropriate documentation and accounting practices. These characteristics suggest that tax compliance among SMEs should not be considered merely as unwillingness to pay taxes. Non-compliance can arise from inadequate knowledge, poor documentation, administrative difficulties, negative attitudes, perceptions of unfairness, or institutional constraints. Understanding these different sources of compliance behaviour is therefore necessary for developing effective tax policies.

Hospitality Industry and VAT Compliance

The hospitality industry consists of businesses providing accommodation, food, beverages, entertainment, catering, event, and related services. For the purpose of this study, hospitality SMEs include hotels, restaurants, guest houses, lounges, catering businesses, event centres, and related enterprises operating within Abuja. Hospitality businesses possess characteristics that make VAT compliance particularly important. First, they frequently undertake large numbers of relatively small

transactions with final consumers. Second, payments may occur through cash, bank transfers, point-of-sale terminals, and digital payment platforms. Third, business transactions may occur continuously and sometimes outside conventional working hours. These characteristics increase the importance of effective record keeping and accounting systems. The hospitality sector therefore differs from sectors characterised by fewer business-to-business transactions or more formal invoicing systems. Where transaction documentation is inadequate, hospitality businesses may experience difficulties determining taxable sales and VAT liabilities. The industry consequently provides an appropriate context for investigating whether behavioural characteristics of taxpayers and their interaction with tax institutions affect VAT compliance.

Tax Knowledge and VAT Compliance

Tax knowledge refers to taxpayers' understanding of tax legislation, procedures, rights, responsibilities, filing requirements, payment procedures, and consequences of non-compliance. In relation to VAT, tax knowledge includes understanding taxable transactions, registration requirements, applicable procedures, record-keeping obligations, return filing, and remittance. Adequate tax knowledge can reduce uncertainty and unintentional non-compliance. SME operators who understand their obligations are more likely to maintain appropriate records, recognise relevant deadlines, accurately calculate liabilities, and comply with filing requirements. Conversely, inadequate tax knowledge may cause errors, delayed returns, incorrect computation, and failure to comply even where taxpayers have no deliberate intention to evade taxation. Oladipupo and Obazee (2016) found that tax knowledge was important to compliance among SMEs in Nigeria. More recent Nigerian studies reinforce this relationship. Ellawule et al. (2024) examined 304 MSME respondents and found that both tax rates and tax knowledge significantly affected tax compliance. They further established that tax knowledge moderated the relationship between tax rates and compliance, highlighting the importance of tax literacy in understanding taxpayer behaviour. Similarly, Bello et al. (2024) found that tax knowledge had a significant positive effect on tax compliance among micro and small enterprises in Gombe State, while record keeping strengthened this relationship. Appah and Aganaba (2024) also investigated tax knowledge and voluntary tax compliance among informal-sector operators in Bayelsa State, demonstrating continuing empirical interest in the relationship between knowledge and voluntary compliance in Nigeria. These studies suggest that greater tax knowledge should improve taxpayers' capacity to comply. Nevertheless, knowledge may not automatically translate into compliance where taxpayers perceive the tax system as unfair, have negative attitudes towards taxation, or encounter institutional barriers. This provides justification for examining tax knowledge alongside other behavioural and institutional variables.

Perceived Fairness of the Tax System and VAT Compliance

Perceived tax fairness refers to taxpayers' assessment of whether the tax system, tax burden, administrative procedures, and treatment of taxpayers are equitable and just. Fairness is important because taxpayers evaluate not only what they are legally required to pay but also whether tax obligations and administrative procedures are reasonable. Tax fairness may have distributive and procedural dimensions. Distributive fairness concerns whether tax burdens are shared equitably among taxpayers, while procedural fairness relates to whether tax authorities administer the system

consistently, transparently, and respectfully. Taxpayers who perceive that comparable businesses are treated equally may be more willing to comply voluntarily. Conversely, perceptions of selective enforcement, corruption, excessive tax burden, or arbitrary treatment may weaken tax morale. Feld and Frey (2010) explain tax compliance through the concept of a psychological tax contract, suggesting that the relationship between taxpayers and government involves reciprocity and institutional treatment rather than coercion alone. Where taxpayers receive respectful treatment and perceive government institutions as legitimate, voluntary cooperation can increase. Within hospitality SMEs, perceived fairness may be particularly relevant where business operators compare their compliance burden with competitors, including informal businesses that may appear to operate without equivalent tax obligations. If compliant businesses perceive that non-compliant competitors receive an unfair advantage, their willingness to continue complying may decline. Perceived fairness is therefore expected to influence VAT compliance behaviour.

Taxpayer Attitude and VAT Compliance

Taxpayer attitude refers to an individual's favourable or unfavourable evaluation of taxation and tax compliance. It reflects beliefs and perceptions regarding the desirability, legitimacy, benefits, and burdens associated with paying taxes. According to Ajzen (1991), attitude toward behaviour is an important determinant of behavioural intention. Applied to taxation, taxpayers who regard compliance positively are more likely to develop an intention to comply. Conversely, taxpayers who regard taxes as unnecessary, excessive, unfair, or poorly utilised may develop negative compliance intentions. Ojo and Shittu (2023) provide direct evidence relevant to Nigerian VAT by examining taxpayers' perceptions and attitudes among the factors influencing VAT compliance among SMEs. Their findings support the proposition that taxpayers' internal evaluations of taxation are relevant to compliance alongside organisational and administrative considerations. Taxpayer attitude may also reflect broader perceptions concerning government accountability and public service delivery. Where taxpayers believe their contributions support meaningful public services, positive attitudes and voluntary compliance may be encouraged. Negative experiences with tax authorities or perceptions of poor utilisation of tax revenue may produce the opposite outcome.

Access to Tax Services and VAT Compliance

Access to tax services refers to the extent to which taxpayers can obtain the information, administrative assistance, technology, and support required to fulfil their tax obligations. Tax services may include registration facilities, taxpayer education, online filing, electronic payment platforms, tax advisory services, help desks, complaint-resolution systems, and direct assistance from tax officials. Access to efficient tax services can reduce the administrative burden associated with compliance. SMEs often have limited time, financial resources, and specialised tax expertise. Complicated procedures or inadequate taxpayer assistance may therefore increase compliance difficulties. Conversely, simplified procedures, digital services, and accessible support can facilitate compliance. From an institutional perspective, tax authorities are not merely enforcement agencies; they are also service institutions responsible for creating an environment in which taxpayers can understand and fulfil their obligations. Improving access to tax services can therefore complement enforcement by reducing unintentional non-compliance. Ojo and Shittu (2023) found that VAT

implementation efficacy is among the factors relevant to SME VAT compliance in Nigeria, supporting the broader argument that the administrative environment matters alongside taxpayers' behavioural characteristics.

Theoretical Review

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) was developed by Ajzen (1991) to explain how individual intentions influence actual behaviour. The theory proposes that behavioural intention is determined by three major factors: attitude toward the behaviour, subjective norms, and perceived behavioural control. Attitude refers to an individual's positive or negative evaluation of a particular behaviour, subjective norms concern perceived social expectations or pressures, while perceived behavioural control reflects an individual's perception of the ability or difficulty involved in performing the behaviour. TPB has been widely applied in behavioural research because it recognises that individuals' actions are influenced not only by external incentives but also by their knowledge, perceptions, attitudes, and perceived capacity to perform a particular behaviour. Nevertheless, the theory may provide an incomplete explanation where actual behaviour is significantly constrained by external institutional and administrative conditions (Ajzen, 1991). The theory is relevant to the present study because VAT compliance among hospitality SMEs involves behavioural decisions concerning registration, record keeping, filing, reporting, and remittance of VAT. Taxpayer attitude reflects SME operators' positive or negative evaluation of VAT compliance, while tax knowledge enhances their perceived capacity to understand and fulfil VAT obligations. Perceived fairness of the tax system can also shape taxpayers' evaluation of the legitimacy and desirability of compliance. Thus, hospitality SME operators who possess adequate tax knowledge, perceive the tax system as fair, and maintain favourable attitudes towards taxation are expected to demonstrate stronger VAT compliance. However, because TPB does not fully capture external institutional conditions such as accessibility of tax administration services, it is complemented by Institutional Theory in this study.

Institutional Theory

Institutional Theory explains how organisational behaviour is influenced by the formal rules, regulatory structures, professional expectations, and social pressures existing within an institutional environment. DiMaggio and Powell (1983) identify three major forms of institutional pressure: coercive, normative, and mimetic pressures. Coercive pressures arise from government regulations, laws, and sanctions; normative pressures arise from professional and societal expectations; while mimetic pressures encourage organisations to imitate practices considered legitimate or acceptable within their environment. From a tax perspective, businesses operate within an institutional environment consisting of tax laws, tax authorities, administrative procedures, digital tax systems, professional advisers, and taxpayer support mechanisms. The effectiveness and accessibility of these institutional arrangements may consequently facilitate or constrain tax compliance. Institutional Theory is particularly relevant to this study through access to tax services, which represents the institutional component of the empirical model. Hospitality SMEs may possess adequate tax knowledge and positive attitudes toward VAT compliance but still encounter difficulties where tax

information, electronic filing systems, taxpayer education, advisory services, and administrative support are inaccessible or inefficient. Conversely, accessible and effective tax services may reduce administrative barriers and improve taxpayers' capacity to fulfil their obligations. Institutional Theory therefore complements TPB by recognising that VAT compliance is influenced not only by taxpayers' behavioural intentions but also by the institutional environment within which compliance occurs. The integration of both theories provides a broader explanation of VAT compliance among hospitality SMEs in Abuja.

Economic Deterrence Theory

The Economic Deterrence Theory, associated with Allingham and Sandmo (1972), explains tax compliance as a rational economic decision in which taxpayers compare the expected benefits of tax evasion with its potential costs. The theory assumes that taxpayers may choose non-compliance where the expected financial benefits exceed the perceived risks, but become more likely to comply as the probability of audit, detection, penalties, and other sanctions increases. Consequently, stronger monitoring and more severe penalties increase the expected cost of tax evasion and discourage non-compliance. Although the theory provides an important explanation of enforcement-driven tax compliance, it has been criticised for treating taxpayers primarily as rational economic actors while giving insufficient attention to tax knowledge, attitudes, fairness, morality, trust, and institutional legitimacy (Kirchler, 2007). Economic Deterrence Theory is relevant to the broader understanding of VAT compliance among hospitality SMEs because businesses operate under tax laws supported by monitoring, audits, penalties, and enforcement mechanisms. However, the present study does not adopt the theory as a principal foundation for its empirical model because variables such as audit probability, penalty severity, detection risk, and enforcement intensity are not directly measured. Rather, it is reviewed as a complementary theoretical perspective that demonstrates the potential role of enforcement in tax compliance. The study principally integrates the Theory of Planned Behaviour and Institutional Theory, which correspond directly with the variables examined tax knowledge, perceived fairness of the tax system, taxpayer attitude, and access to tax services and therefore provide greater theoretical consistency with the empirical model.

METHODOLOGY

The study adopts a positivist research philosophy and quantitative cross-sectional survey design to examine the relationship between behavioural and institutional factors and VAT compliance among SMEs in the hospitality industry in Abuja, Nigeria. The target population comprises registered hospitality SMEs, including hotels, restaurants, guest houses, lounges, catering businesses, and event centres, with an estimated population of 2,690 businesses based on available administrative records. Using Yamane's (1967) formula at a 5% margin of error, a minimum sample size of 348 SMEs was determined. To account for possible non-response and unusable questionnaires, the sample was increased by 15%, resulting in approximately 400 questionnaires for distribution. A multi-stage stratified sampling procedure is adopted, involving geographical stratification, classification of SMEs according to hospitality business categories, and random selection of individual businesses from the resulting strata to enhance representativeness and minimize selection bias. Primary data are collected using a structured questionnaire administered to owners, managers, accountants, or senior officers with adequate knowledge of the VAT activities of their businesses. Questionnaire items are

measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5), covering tax knowledge, perceived fairness of the tax system, taxpayer attitude, access to tax services, and VAT compliance. Secondary information from relevant government publications, tax authority reports, SME statistics, policy documents, and academic literature complements the primary data. Data are analysed using descriptive statistics, correlation, and multiple regression analysis, while reliability, validity, multicollinearity, and common method variance tests are conducted to ensure the robustness of the findings. Procedural measures, including anonymity, confidentiality, neutral questionnaire wording, and separation of predictor and outcome items, are also adopted to minimise self-reporting and common method biases.

Operationalisation and Measurement of Variables

The study operationalized VAT compliance and its determinants using behavioral and institutional indicators adapted from prior empirical studies.

Table 3.1: Operationalisation of Variables

Variable	Type	Measurement Indicators	Measurement Scale	Source Basis
VAT Compliance	Dependent Variable	Timeliness of filing, remittance accuracy, VAT registration, record keeping	Likert Scale	Michael et al. (2024)
Tax Knowledge	Independent Variable	Awareness of VAT obligations, filing procedures, VAT calculation knowledge	Likert Scale	Bornman & Ramutumbu (2019)
Perceived Fairness	Independent Variable	Perceived equity, transparency, fairness of VAT administration	Likert Scale	Al-Rahamneh & Bidin (2022)
Taxpayer Attitude	Independent Variable	Moral obligation, civic responsibility, willingness to comply	Likert Scale	Ali et al. (2021)
Access to Tax Services	Independent Variable	Access to filing information, advisory services, digital platforms	Likert Scale	Mustapha & Obid (2015)
Business Type	Control Variable	Hospitality sub-sector classification	Categorical	SMEDAN (2025)

The use of composite Likert-scale indices is supported in behavioural and tax compliance literature because aggregated responses approximate interval-level measurement suitable for parametric analysis.

Model Specification

The study employs descriptive statistics, Pearson correlation and Ordinary Least Squares (OLS) multiple regression to analyse the data. OLS is considered appropriate because each construct is measured using multiple five-point Likert-scale items that are aggregated into composite scores. Aggregated multi-item Likert measures are commonly treated as approximately continuous variables for multivariate statistical analysis. OLS also permits the simultaneous estimation of the statistical relationships between tax knowledge, perceived fairness of the tax system, taxpayer attitude, access to tax services, and VAT compliance. Although Structural Equation Modelling (SEM) offers advantages in estimating latent constructs and explicitly accounting for measurement error, OLS is retained because the primary purpose of the study is to estimate the relationships between validated composite construct scores rather than simultaneously estimate a complex measurement and

structural model. The use of OLS also provides a relatively parsimonious and interpretable framework for evaluating the contribution of each explanatory variable to VAT compliance. To ensure the appropriateness and robustness of OLS estimation, relevant regression assumptions are examined before interpreting the results. Multicollinearity is assessed using the Variance Inflation Factor (VIF) and tolerance statistics, while heteroscedasticity is examined using an appropriate heteroscedasticity test. The linearity of relationships is assessed through residual and scatter plots, while the distribution of residuals is examined using normality diagnostics. Independence of residuals is assessed using the Durbin-Watson statistic. Where violations of OLS assumptions are detected, appropriate corrective procedures, including heteroscedasticity-robust standard errors, are applied.

The empirical model is specified as:

$$VATCi = \beta_0 + \beta_1TKi + \beta_2PFi + \beta_3TAi + \beta_4ATSi + \epsilon_i \quad (1)$$

Where:

VC = VAT Compliance, TK = Tax Knowledge, PF = Perceived Fairness, TA = Taxpayer Attitude
ATS = Access to Tax Services, β_0 = Constant term, β_1 - β_4 = Regression coefficients, ϵ_i = Error term

Validity of Research Instrument

To ensure content validity, the questionnaire was subjected to the expert evaluation. Their recommendations led to modifications in wording, sequencing and conceptual alignment of several questionnaire items. The validation process ensured that the instrument adequately captured the behavioural and institutional dimensions of VAT compliance among hospitality SMEs.

Reliability of Research Instrument

A pilot study involving 30 SMEs outside the main study sample was conducted to assess the internal consistency of the questionnaire.

Cronbach's Alpha coefficient was used to evaluate reliability.

Table 3.2: Reliability Statistics

Variable	Cronbach's Alpha
Tax Knowledge	0.812
Perceived Fairness	0.846
Taxpayer Attitude	0.873
Access to Tax Services	0.821
VAT Compliance	0.889
Overall Reliability	0.902

The results indicate that all constructs exceeded the minimum reliability threshold of 0.70 recommended by Hair et al. (2014), thereby confirming strong internal consistency and reliability of the measurement scales.

Reliability of Research Instrument

Reliability refers to the degree of consistency and stability of measurement items.

A pilot study involving 30 SMEs outside the main study sample was conducted to assess the internal consistency of the questionnaire. Cronbach's Alpha coefficient was used to evaluate reliability.

RESULTS AND DISCUSSION

Descriptive Analysis of Study Variables

The study employed a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree to measure the major constructs. Mean scores and standard deviations were used to evaluate respondents' perceptions regarding tax knowledge, perceived fairness, taxpayer attitude, access to tax services, and VAT compliance.

Tax Knowledge

Table 4.2 Descriptive Statistics for Tax Knowledge

Tax Knowledge Item	N	Min	Max	Mean	Std. Dev.
I understand the VAT obligations that apply to my business.	348	1.00	5.00	4.12	0.57
I am aware of VAT filing timelines.	348	1.00	5.00	4.08	0.64
I have received adequate training or education on VAT compliance.	348	1.00	5.00	4.04	0.60
I know how to calculate VAT payable correctly.	348	1.00	5.00	4.11	0.62
Overall Tax Knowledge	348	—	—	4.09	0.61

Source: Field Survey (2025).

Respondents demonstrated a high level of tax knowledge, with an overall mean of 4.09 (SD = 0.61). Understanding of VAT obligations recorded the highest mean (4.12), while VAT compliance training recorded the lowest (4.04). This suggests that respondents generally understood their VAT responsibilities, although formal training appeared comparatively limited.

Perceived Fairness of the Tax System

Table 4.3 Descriptive Statistics for Perceived Fairness

Statement	Mean	Std. Deviation
VAT laws are applied fairly across businesses.	4.05	0.66
The VAT system is transparent and equitable.	3.96	0.61
VAT revenue benefits public services.	4.26	0.65
SMEs are treated equally by tax authorities.	4.22	0.65

Source: Field Survey (2025).

Respondents generally viewed the VAT system as fair, with an overall mean of approximately 4.12. The highest rating was for the belief that VAT revenue benefits public services (4.26), followed by

equal treatment of SMEs by tax authorities (4.22). Transparency and equity recorded the lowest mean (3.96), suggesting a comparatively weaker perception in this area.

Taxpayer Attitude

Table 4.4 Descriptive Statistics for Taxpayer Attitude

Statement	Mean	Std. Deviation
Paying VAT is a civic duty.	4.18	0.63
I feel morally obligated to comply with VAT laws.	4.14	0.63
VAT contributes to national development.	3.98	0.69
I would comply even under weak enforcement.	3.94	0.69

Source: Field Survey (2025).

The findings revealed a generally positive attitude towards VAT compliance, with an overall mean of 4.06. Paying VAT as a civic duty had the highest mean (4.18), followed by moral obligation to comply (4.14). Compliance under weak enforcement recorded the lowest mean (3.94), indicating that enforcement may still influence compliance behaviour.

Access to Tax Services

Table 4.5 Descriptive Statistics for Access to Tax Services

Statement	Mean	Std. Deviation
VAT filing information is easy to access.	4.01	0.70
Online platforms facilitate VAT payment.	4.07	0.67
Tax advisory services are accessible when needed.	4.10	0.65
FIRS provides adequate compliance support.	4.07	0.66

Source: Field Survey (2025).

Respondents generally considered VAT-related services accessible, with an overall mean of 4.06. Tax advisory services recorded the highest mean (4.10), while access to VAT filing information had the lowest (4.01). The findings therefore indicate favourable access to tax support, although filing information could be improved.

VAT Compliance

Table 4.6 Descriptive Statistics for VAT Compliance

Statement	Mean	Std. Deviation
My business is registered for VAT with FIRS.	4.21	0.62
I file VAT returns regularly and on time.	3.83	1.21
I remit the correct amount of VAT collected.	4.06	1.05
My business maintains proper VAT records.	3.84	1.15

Source: Field Survey (2025).

VAT compliance was relatively high, with a mean of 3.99. VAT registration recorded the highest mean (4.21), while timely filing of VAT returns had the lowest (3.83). The relatively high standard deviations for filing, remittance, and record keeping indicate greater differences in compliance practices among businesses.

Overall, the descriptive results show that respondents reported high levels of tax knowledge, favourable perceptions of VAT fairness, positive taxpayer attitudes, good access to tax services, and relatively high VAT compliance. However, the findings also reveal potential weaknesses in VAT training, transparency, timely filing, record keeping and compliance under weak enforcement.

Correlation Analysis

Pearson Product-Moment Correlation analysis was conducted to examine the relationships between the explanatory variables and VAT compliance.

Table 4.7 Correlation Analysis Summary

Variables	Correlation Coefficient (r)	p-value	Interpretation
Tax Knowledge and VAT Compliance	-0.004	0.950	Not Significant
Perceived Fairness and VAT Compliance	0.054	0.350	Not Significant
Taxpayer Attitude and VAT Compliance	0.025	0.670	Not Significant
Access to Tax Services and VAT Compliance	0.063	0.274	Not Significant

Source: Field Survey (2025).

The correlation results reveal weak and statistically insignificant relationships between the independent variables and VAT compliance. None of the variables recorded p-values below the 0.05 significance threshold, indicating the absence of meaningful linear associations.

These findings suggest that behavioural and perceptual variables alone may be insufficient in explaining VAT compliance behaviour among SMEs in Abuja's hospitality industry.

Regression Analysis

Multiple linear regression analysis using the Ordinary Least Squares (OLS) technique was conducted to evaluate the combined influence of tax knowledge, perceived fairness, taxpayer attitude, and access to tax services on VAT compliance.

Table 4.8 Regression Model Summary

R	R ²	Adjusted R ²	Std. Error	F-statistic	p-value	Durbin-Watson
0.083	0.007	-0.007	0.52458	0.506	0.731	2.031

Source: Field Survey (2025).

Table 4.9 ANOVA Results

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.557	4	0.139	0.506	0.731
Residual	81.180	295	0.275		
Total	81.737	299			

Source: Field Survey (2025).

Table 4.10 Regression Coefficients

Variable	Beta (B)	t-value	p-value	VIF
Tax Knowledge	-0.065	-0.678	0.499	1.352
Perceived Fairness	0.067	0.719	0.473	1.397
Access to Tax Services	0.081	0.953	0.342	1.525
Taxpayer Attitude	-0.017	-0.189	0.850	1.556

Source: Field Survey (2025).

Summary of Regression Analysis

The OLS regression results indicate that tax knowledge, perceived fairness, access to tax services, and taxpayer attitude jointly have very weak explanatory power for VAT compliance among the sampled hospitality SMEs. The model recorded an R^2 of 0.007 and an adjusted R^2 of -0.007, showing that the four predictors explain only 0.7% of the variation in VAT compliance.

The ANOVA result further confirms that the overall regression model is not statistically significant ($F = 0.506$, $p = 0.731$). Thus, the four explanatory variables do not jointly provide significant evidence of predicting VAT compliance. At the individual level, tax knowledge had a negative but insignificant effect ($B = -0.065$, $p = 0.499$), while perceived fairness had a positive but insignificant effect ($B = 0.067$, $p = 0.473$). Access to tax services recorded the largest positive coefficient ($B = 0.081$) but was also insignificant ($p = 0.342$). Taxpayer attitude had a very small negative and insignificant effect ($B = -0.017$, $p = 0.850$). Therefore, none of the four variables significantly predicts VAT compliance in the study. The VIF values (1.352–1.556) indicate that multicollinearity is not a problem among the independent variables. Overall, the findings suggest that the selected behavioural and service-related factors do not adequately explain variations in VAT compliance within the sample. Other factors, such as tax enforcement, audit probability, penalties, compliance costs, record-keeping practices, firm characteristics, institutional trust, and perceived detection risk, may provide greater explanatory power and should be considered in future research. In conclusion, the regression results do not support the hypothesised significant relationships between tax knowledge, perceived fairness, taxpayer attitude, access to tax services and VAT compliance.

Discussion of Findings

The study investigated whether tax knowledge, perceived tax fairness, taxpayer attitude and access to tax services influence VAT compliance among hospitality SMEs in Abuja, Nigeria. The regression model was statistically insignificant ($F = 0.506$, $p = 0.731$), with the explanatory variables accounting for only 0.7% of the variation in VAT compliance ($R^2 = 0.007$). This suggests that the factors examined have limited ability to explain differences in VAT compliance. Other factors, including audit likelihood, penalties, enforcement, compliance costs, record-keeping practices, firm characteristics, institutional trust and digital capability, may therefore be relevant, although their effects were not examined.

Tax knowledge had a negative and insignificant relationship with VAT compliance ($B = -0.065$, $t = -0.678$, $p = 0.499$). The result contrasts with Oladipupo and Obazee (2016) and Ellawule et al. (2024), who reported significant relationships between tax knowledge and compliance. The difference may reflect variations in location, sample characteristics, measurement methods, and the type of tax examined. The relatively high level of reported tax knowledge among respondents may also have limited its ability to distinguish compliant from less-compliant firms. Thus, knowledge alone may not guarantee VAT compliance.

Perceived tax fairness was positively but insignificantly related to VAT compliance ($B = 0.067$, $t = 0.719$, $p = 0.473$). Although the positive direction agrees with the expectation that fair and transparent tax administration encourages compliance, the evidence was insufficient to establish a significant relationship. Similarly, taxpayer attitude had a negative and insignificant relationship with compliance ($B = -0.017$, $t = -0.189$, $p = 0.850$), differing from Ojo and Shittu (2023). This may indicate that favourable attitudes do not necessarily translate into actual compliance where administrative, financial, organisational or enforcement constraints exist.

Access to tax services showed a positive but insignificant relationship with VAT compliance ($B = 0.081$, $t = 0.953$, $p = 0.342$). While this direction is consistent with Institutional Theory, access to information, digital platforms, advisory services, and compliance support alone did not significantly explain compliance differences. Overall, the findings indicate that VAT compliance is more complex than the four factors examined.

Conclusion

The study concludes that tax knowledge, perceived fairness, taxpayer attitude, and access to tax services, as measured in the study, do not significantly explain VAT compliance among the sampled hospitality SMEs in Abuja. Together, the variables explain only 0.7% of the variation in compliance. This does not imply that behavioural and institutional factors are universally irrelevant; rather, their direct effects were not statistically established in the present sample.

Recommendations

Tax authorities should combine taxpayer education with practical compliance measures covering filing, record keeping, monitoring, and remittance. VAT administration should also emphasise transparency, consistency, and procedural fairness. Taxpayer-support programmes and digital platforms should provide practical assistance to SMEs, while compliance strategies should be tailored to the specific characteristics of the hospitality sector. Future research should incorporate broader determinants such as enforcement intensity, audit probability, penalties, compliance costs,

institutional trust, firm characteristics, and digital capability. Hospitality SMEs should also strengthen accounting and digital record-keeping systems to improve documentation and VAT compliance.

REFERENCES

- Adekunle, T. A. (2022). Tax service accessibility and voluntary VAT compliance among small businesses in Lagos State, Nigeria. *International Journal of Taxation and Fiscal Policy*, 8(2), 45–61.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Eze, C. C., & Okafor, V. N. (2022). Women entrepreneurship and SME growth in Nigeria's service sector. *African Journal of Business and Economic Research*, 17(3), 88–104.
- Federal Inland Revenue Service. (2020). *Value Added Tax Act (as amended)*. Government Printer.
- Federal Inland Revenue Service. (2021). *Tax administration and digital compliance guidelines for SMEs in Nigeria*. FIRS Publications.
- Hoft, S. J. (2021). Perceived fairness and tax compliance behavior in developing economies. *Journal of Public Finance and Taxation*, 14(1), 55–71.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press.
- Nnyanzi, J. B., Bbale, J. M., & Sendi, R. (2018). Tax compliance and public accountability in developing countries. *International Journal of Economics and Financial Issues*, 8(3), 45–54.
- Nwanne, T. F. (2023). Taxpayer attitude and tax compliance among SMEs in Lagos State. *Nigerian Journal of Accounting and Finance*, 15(1), 102–118.
- Ocheni, S., & Gemade, M. T. (2022). Tax fairness perception and compliance behavior among small business owners in Benue State, Nigeria. *Journal of Accounting and Taxation*, 14(2), 76–89.
- Olaoye, C. O., & Akinyemi, B. O. (2020). Tax literacy and tax compliance among small and medium enterprises in Nigeria. *Journal of Accounting and Taxation*, 12(4), 91–103.
- Taherdoost, H., & Madanchian, M. (2024). Digital taxation systems and SME compliance behavior in emerging economies. *International Journal of Digital Accounting Research*, 24(1), 33–52.
- Waweru, K. M. (2023). Tax knowledge and compliance among SMEs in Kenya. *African Journal of Accounting, Auditing and Finance*, 11(2), 120–137.
- National Bureau of Statistics. (2024). *SME contribution to Nigeria's economy report*. National Bureau of Statistics.
- Organisation for Economic Co-operation and Development. (2021). *Tax administration 2021: Comparative information on OECD and other advanced and emerging economies*. OECD Publishing. <https://doi.org/10.1787/2a5c30d8-en>
- World Bank. (2022). *Enhancing tax compliance among SMEs in developing economies*. World Bank Publications.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.