Legal and Administrative Efficiency of Value Added Tax and Revenue Generation in Bayelsa State, Nigeria

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Abstract: *Value added tax (VAT) remains a vital instrument for revenue mobilization in Nigeria, yet its effectiveness depends on the strength of legal frameworks and administrative efficiency. In Bayelsa State, where fiscal reliance on oil revenue is unsustainable, improving VAT efficiency is critical for economic stability. This study employed quantitative research design using survey data from tax administrators, business operators, and legal practitioners in Bayelsa State. Descriptive and inferential statistical techniques were applied to examine the relationship between legal and administrative efficiency of VAT and revenue generation. Results revealed a positive and significant relationship between legal and administrative efficiency and VAT revenue performance. Specifically, clear and enforceable VAT laws, coupled with robust administrative processes such as digital platforms, taxpayer monitoring and staff capacity development, significantly enhanced compliance and revenue collection. However, the study also highlights constraints including Nigeria's federal revenue-sharing system, weak compliance culture, and administrative bottlenecks, which may limit the full realization of efficiency gains at the state level. The findings underscore the need for policymakers to strengthen VAT registration, invest in administrative infrastructure, and promote taxpayer education to optimize VAT revenue. By doing so, Bayelsa State can diversify its fiscal base, reduce overdependence on oil revenues, and enhance long-term fiscal sustainability.*

Keywords: Value Added Tax, Legal Efficiency, Administrative Efficiency, Revenue Generation, Bayelsa State, Nigeria.

INTRODUCTION

Revenue generation is the cornerstone of sustainable governance and national development. Governments require adequate financial resources to provide essential public goods and services such as healthcare, education, security and infrastructure. In most countries, taxation remains the most reliable and sustainable source of government revenue, as it reduces over-dependence on

volatile sources like natural resources or external borrowing (Musgrave & Musgrave, 1989; IMF, 2024b). Appah et al, (2023a); Appah & Duoduo, (2023); Appah et al, (2023b) suggested that taxes are compulsory contributions made by citizens of any society to the state subject to the jurisdiction of the government, for reasons of residence or property and the revenue generated is for the provision of social goods and services for the economic growth and development of that society. Doyle (2022) noted that taxes are used to fund public services, facilitate the redistribution of wealth and influence the behaviour of taxpayers. According to Gunel and Didinmez (2023), revenues from taxation make up the largest share of government revenue for developing countries. Kurniawan (2020) noted that tax is the mandatory contribution made by taxpayers to the state by individuals or entities that are compelled by law, with no express compensation and employed for the nation's desires for the greatest affluence of the citizens. The author further argued that the revenue generated from taxes will be used for public services, boosting the economy, social protection, education, order and security, defense, etc. In a similar vein, Usang and Etim (2021) described tax as an obligatory levy which a state imposes on its people to enable it to attain the necessary revenue to finance its government activities. The authors added that tax is commonly considered as a civic obligation intended at generating revenue to meet the government expenditure. Hence, it is a necessary cost which the taxpayers seek to reduce while the government on the other hand seeks to increase tax revenue. Among the different forms of taxation, value added tax (VAT) has gained prominence as one of the most effective instruments of domestic resource mobilization.

Value-added tax is a broad-based consumption tax imposed at each stage of the production and distribution process, but ultimately borne by the final consumer (OECD, 2024). VAT is levied on the value added at each stage with mechanisms for input tax credits that reduce cascading effects and improve compliance (Bird & Gendron, 2023). Because of these features, VAT has been adopted by over 170 countries globally, where it contributes significantly to government revenue (OECD, 2024). In Nigeria, VAT was introduced in 1993 through Decree No. 102, replacing the sales tax regime. Since its introduction, VAT has become a critical source of non-oil revenue for the country, second only to company income tax (FIRS, 2023). For states like Bayelsa, where over-dependence on federal oil allocations poses sustainability risks, VAT collection has become increasingly vital for broadening the revenue base and supporting fiscal sustainability (Olaoye & Afolabi, 2023). Despite its potential, debates persist about the efficiency of VAT in revenue mobilization. Issues such as weak legal frameworks, administrative inefficiencies, tax evasion, and compliance challenges continue to undermine its effectiveness in Nigeria (Anyaduba, 2022; IMF, 2024).

Although extensive studies have been done on taxation and government revenue in Nigeria, significant gaps remain in understanding the effectiveness of value-added tax (VAT) as a sustainable revenue source. Existing research largely emphasizes the contribution of VAT to aggregate government revenue at the federal level (Anyaduba, 2022; IMF, 2024), with limited focus on sub-national contexts such as Bayelsa State, where over-dependence on oil revenue makes fiscal diversification critical. Moreover, prior studies tend to focus primarily on the quantitative contribution of VAT on revenue generation (Olaoye & Afolabi, 2023; Ojochogwu & Enakirerhi, 2022), while issues of legal frameworks, administrative efficiency, and compliance

mechanisms receive less empirical attention. For example, while Bird and Gendron (2023) highlight VAT's neutrality and self-enforcing design in developed economies, relatively fewer studies have investigated whether weak institutional and administrative capacity in developing economies like Nigeria undermines these theoretical advantages. Furthermore, recent global shifts including the COVID-19 pandemic, rising digital trade, and debates around e-VAT systems have significantly altered tax administration practices (OECD, 2024; IMF, 2024). However, few empirical studies in Nigeria have assessed how these changes impact VAT collection efficiency, taxpayer compliance, and revenue generation. In addition, much of the existing Nigerian literature predates the 2020 increase in VAT rate from 5% to 7.5%   leaving a gap in understanding revenue and taxpayer burden (Uzonwanne, 2021). Therefore, this study addresses these gaps by examining the relationship between the legal and administrative efficiency of the value-added tax (VAT) and revenue generation in Bayelsa State, Nigeria, while also integrating legal and administrative perspectives. This contextual focus is expected to provide a more nuanced understanding of VATs effectiveness as a fiscal tool in subnational economies that are heavily reliant on oil allocations. The specific objectives include the following:

1. To examine the clarity of value-added tax (VAT) laws and government revenue generation in Bayelsa State, Nigeria.
2. To determine the fairness of value-added tax (VAT) exemptions and government generation revenue in Bayelsa State, Nigeria.
3. To investigate the taxpayer awareness of value-added tax (VAT) regulations and government revenue generation in Bayelsa State, Nigeria.
4. To assess the efficiency of value-added (VAT) collection and government revenue generation in Bayelsa State, Nigeria.
5. To examine the enforcement of value-added tax (VAT) compliance and government revenue generation in Bayelsa State.
6. To investigate the adoption of digital value-added tax (VAT) system and government revenue generation in Bayelsa State.

The following research questions guided the study:

1. Does clarity of value-added tax (VAT) laws relate to government revenue generation in Bayelsa State, Nigeria?

2. What is the relationship between the fairness of value-added tax (VAT) exemptions and government revenue generation in Bayelsa State, Nigeria?

3. Does taxpayer awareness of value-added tax (VAT) regulations relate to government revenue generation in Bayelsa State, Nigeria?

4. What is the relationship between the efficiency of value-added (VAT) collection and government revenue generation in Bayelsa State, Nigeria?

5. Does the enforcement of value-added tax (VAT) compliance and government revenue generation in Bayelsa State?

6. What is the relationship between the adoption of digital value-added tax (VAT) system and government revenue generation in Bayelsa State?

The following null hypotheses were tested in this study:

H0₁: Clarity of value-added tax (VAT) laws has no significant effect on government revenue generation in Bayelsa State.

H0₂: Fairness of value-added tax (VAT) exemptions has no significant effect on government revenue generation in Bayelsa State, Nigeria.

H0₃: Taxpayer awareness of value-added tax (VAT) regulations has no significant effect on government revenue generation in Bayelsa State, Nigeria.

H0₄: Efficiency of value-added tax (VAT) collection has no significant effect on government revenue generation in Bayelsa State, Nigeria.

H0₅: Enforcement of value-added tax (VAT) collection has no significant effect on government revenue generation in Bayelsa State, Nigeria.

H0₆: Adoption of digital value-added tax (VAT) collection has no significant effect on government revenue generation in Bayelsa State, Nigeria.

LITERATURE REVIEW
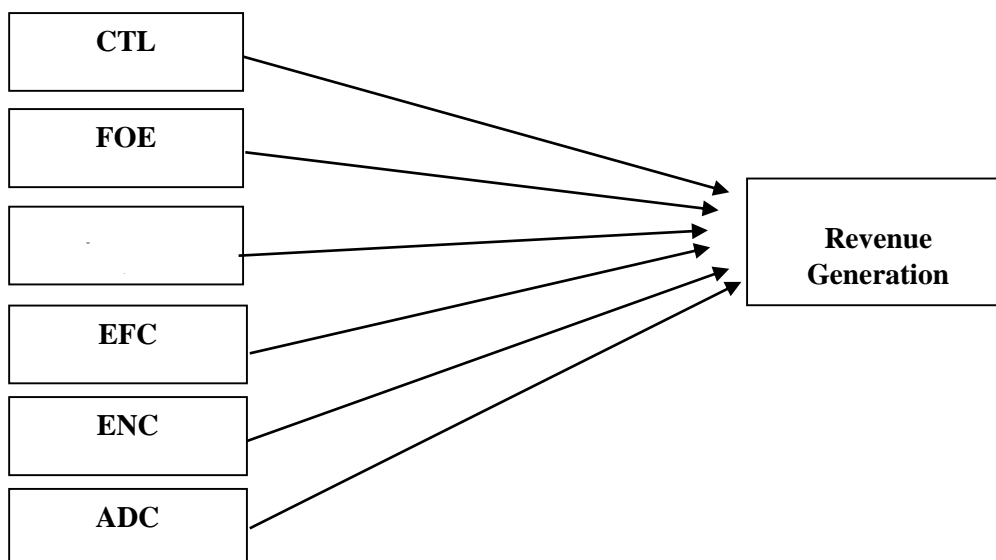
Figure: Conceptual Framework

Concept of Value-Added Tax:
The concept of value-added tax (VAT) has been extensively studied in the field of public finance and taxation. VAT is a consumption tax that is levied on the value added at each stage of production and distribution, and it is considered one of the most important sources of government revenue in many countries. According to Egolum and Ugonabo (2021), VAT is consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. The modality of its application involves a multi-stage collection procedure. This means that at each stage of a manufacturing or operating process VAT is paid and collected by the buyer and supplier respectively. It is a form of indirect tax levied on the consumption of goods and services at each stage of the production and distribution process where value is added. VAT is charged at multiple stages, but businesses can usually deduct the VAT they have paid on their inputs from the VAT they collect on their outputs, thereby avoiding double taxation. According to OECD (2024), VAT is a broad-based consumption tax assessed on the value of goods and services, typically collected in a credit-invoice method that allows businesses to recover the tax paid on input. Bird and Gendron (2023) explain that VAT as a sel-enforcing mechanism because each firm in the supply chain has an incentive to request invoices showing tax paid to claim input credits, thus creating a paper trail that encourages compliance. In Nigeria, VAT was first introduced by the Value Added Tax Decree No. 102 of 1993, replacing sales tax, and it is currently administered by the Federal Inland Revenue Service (FIRS). VAT has since become one of the most vital sources of non-oil revenue for government financing (Federal Inland Revenue Services, 2023). The major characteristics of VAT include: it is imposed at each stage of production and distribution; final consumers bear the tax burden since businesses recover input VAT; VAT should not distort production and trade, as it taxes consumption rather than income or investment and VAT is one of the most widely adopted forms of taxation globally, present in over 170 countries (IMF, 2024).

Concept of Revenue Generation: Revenue generation refers to the process by which governments, organisations or institutions mobilize funds to finance their activities, projects, and obligations. In the context of public finance, revenue generation is the mechanism through which governments obtain financial resources primarily through taxation, non-tax revenue, grants, and borrowing to fund public goods and services. Nnubia et al (2020) stated that revenue generation is the process by which businesses and government agencies strategize to generate sufficient revenue for the provision of public goods and services. Similarly, Omesi and Appah (2022) noted that revenue generation in the public sector is the process of raising funds for the government. The authors further noted that taxation is the major source of government revenue and revenue generation is the traditional function of a good tax system. According to Musgrave and Musgrave (1989), revenue generation in public finance represents the means through which government raises funds to meet its expenditure responsibilities, ensure economic stability, and provide social welfare. The International Monetary Fund (IMF, 2024) defines revenue generation as the process of mobilizing domestic resources from tax and non-tax sources to finance government expenditure in a sustainable and equitable manner. In the Nigerian context, Anyaduba (2022) explains that revenue generation involves the mobilization of funds through federally collected taxes such as value-added tax, company income tax, petroleum profit tax, custom duties, and internally generated revenue at state and local government levels. Scholars argue that efficient revenue

generation is crucial for economic development, reduction of budget deficits, and provision of essential infrastructure (Olaoye & Afolabi, 2023).

One of the most significant sources of government revenue worldwide is taxation, and within this, value-added tax (VAT) has emerged as a key instrument. VAT contributes substantially to revenue generation because of its broad tax base, consumption-oriented nature, and self-enforcing mechanism through the input-output credit system. According to the International Monetary Fund (2024a), VAT accounts for nearly one-third of global tax revenue in countries that have adopted it, making it one of the most effective instruments for domestic resource mobilization. In Nigeria, VAT has become the second largest source of non-oil revenue after company income tax (FIRS, 2023). Scholars such as Bird and Gendron (2023), argue that VAT's neutrality and multi-stage collection process enhance compliance and reduce evasion compared to traditional sales tax, thereby improving revenue generation capacity. Furthermore, Olaoye and Afolabi (2023) emphasise that VAT plays a critical role in financing public expenditure in developing economies where other tax handles may be less reliable due to weak income tax systems. Thus, the relationship between VAT and revenue generation is one of direct fiscal significance the more efficient the legal and administrative framework governing VAT, the higher the government's ability to mobilize sustainable revenue for development.

Theoretical Review: This study is grounded in the optimal taxation theory. This theory has been championed by economists who sought to design tax systems that balance efficiency with equity. The major advocates of this theory include Frank Ramsey (1927), James A. Mirrlees (1971), Myles (1995). It is a theory that studies how governments should design tax systems to maximise social welfare while raising necessary revenue. Diamond and Saez (1995). Slernrod (2020) explains that the optimal tax theory encompasses designing and implementing a tax structure that improves efficiency and decreases its representation in the market under certain economic constraints. This involves giving due attention to individuals' utility and minimising the distortions caused by taxation towards optimizing the tax benefits. This theory provides the following benefits: it provides rigorous mathematical models to guide governments in designing tax systems, it explicitly incorporates social welfare functions, enabling policymakers to consider fairness and redistribution, this theory can be applied to capital taxation, wealth taxation and environmental taxation, giving governments tools for modern challenges. The following are the criticisms of the optimal taxation theory: OTT often assumes rational taxpayers, perfect information and government preferences, which may not reflect reality, real-world tax systems face political, cultural, and institutional constraints not captured in formal models and a tax may be optimal in theory but costly or impossible to implement due to compliance or enforcement challenges. OTT emphasises that an optimal tax is also one that is easy to administer and difficult to evade. Hence, VAT being collected in stages along the supply chain, reduces opportunities for tax evasion and improves revenue reliability, and VAT aligns with OTT because it provides a stable and predictable revenue stream (Diamond & Saez, 2011).

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Empirical Revenue

Efundade (2020) investigated value-added tax and revenue generation in Nigeria from 1992 to 2019. The study utilised an ex-post facto research design, and secondary data were sourced from the Central Bank of Nigeria (CBN) statistical bulletin, the Budget Office of the Federation, and the World Bank Development Indicator Database. The data obtained were analysed using both descriptive and the Vector Error Correction Model method of analysis. The descriptive analysis in the study consisted of the mean, standard deviation, Kurtosis, and Jarque-Bera statistics of each variable. The findings revealed that there was a presence of co-integration (long-run relationship) among the variables in the model, actual public consumption tax and personal income tax, respectively significant relationship with revenue generation in Nigeria, while goods and service tax and revenue generation are not significantly related to revenue generation of the country in the long run. The study, therefore, concluded that there is a significant relationship between consumption tax and revenue generation in Nigeria.

Odunsi (2022) examined value-added tax and growth in Nigeria from 1994 to 2018. The study employed an ex-post facto research design, and secondary data were obtained from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service reports, the Federal Office of Statistics, and the Federal Ministry of Finance for the study period of twenty-five (25). The secondary data were analysed using the regression (i.e., OLS) approach, and the result suggested that value-added tax revenue generated had a significant positive association with economic growth.

Odu (2022) explored value-added tax, revenue generation and economic growth in Nigeria from 1994 to 2018. The study used an ex post facto research design, and secondary data were collected from the Central Bank of Nigeria (CBN) and Federal Inland Revenue Service (FIRS) and the secondary data were analysed using descriptive statistics, correlation matrix, variance inflation factor, stationarity, cointegration, vector auto regression model and error correction model. The findings suggest that VAT has a significant influence on total tax revenue. The study also shows that VAT has a significant and negative influence on GDP with a one-year lag. The trend in VAT has a positive coefficient, indicating that VAT increases with time.

Okolo et al (2025). Investigated the value-added tax from the digital economy and on the technology fund on revenue generation. This study used a survey research design involving 500 respondents, including 50 members of the Federal Inland Revenue Service and 450 internet users from a total population of 4,4 million phone users. Primary data were obtained from a structured questionnaire after validity and reliability tests. The responses from the administered questionnaires were analysed using descriptive statistics and regression analysis. The findings indicated that electronic transfer of funds significantly enhanced revenue generation. Additionally, the digital economy positively affected aggregate revenue streams, while digital taxes also promoted technological utilisation in Nigeria. The study concluded that effective implementation of digital taxation, value-added tax, and technology funds has improved revenue generation in Nigeria. The study recommended a streamlined tax structure to ensure consistent revenue growth, highlighting the need for self-compliance, reduced administrative burdens and sustaining the eight proposed pillars will be vital for advancing Nigeria's digital economy.

Orisadare and Fasoye (2022) analysed VAT and economic growth of Nigeria from 1994 to 2020. The study used an ex post facto research design, and secondary data were collected from the Central Bank of Nigeria and the Federal Inland Revenue Service. The secondary data was analysed using the unit root test and vector autoregression. The findings disclosed the value-added tax impact on the economic growth of Nigeria.

Olasunkanmi and Adejuwon (2023) examined value-added tax automation and revenue generation in Nigeria. The study employed an ex post facto research design, and data were collected from the Federal Inland Revenue Service statistical bulletin from 1994 to 2021. The data obtained from the secondary sources were using descriptive statistics and diagnostic test and johanson cointegration. The findings disclosed that TaxPro-Max has a significant relationship with Revenue Generation. The study, therefore, concluded that the integrated tax administration system could deliver the required tax revenue. However, the taxpayers lacked operational understanding of the process, likewise, the Amada process. The TaxPro-Max system performed significantly despite a year of data observation. This indicated that if TaxPro-Max is allowed for 5 to 10 years, automation of the tax system would gain a full length of operation in Nigeria.

Kunwar (2023) investigated value-added tax and revenue generation in Nepal from 1974/75 to 2017/18. The study employed analytical and descriptive research method and secondary data was obtained when needed from the Ministry of Finance (MOF), Nepal Rastra Bank (NRB), National Planning Commission (NPC) and Central Bureau of Statistics (CBS). The investigation employed quantitative tools and econometric methods to analyse the data. The study used unit root to determine if the data are stationary followed by co integration test, to investigate the relationship between the variables under consideration. ARDL modelling is employed because of the co-integration test. Post-estimation tests used include serial correlation, normality, heteroscedasticity, Granger causality, the cumulative sum of recursive residuals (CUSUM), and the cumulative sum of squares of recursive residuals (CUSUMQ) were used to evaluate the model's stability. The findings of the study showed that LNVAT, LNRCE, LNRIT, LNROT, and LNRNT are significant, which is desirable. As a result, a 1 percent increase in value-added tax leads to a 21.60 percent increase in government tax revenue, while a 1percent increase in custom excise duty leads to a 39.31percent increase in tax revenue.

METHODOLOGY

Research Design: Appah (2020) described research design as the methodological connection between the philosophies and subsequent selection of data collection methods. This paper adopted cross sectional research design.

Population of the Study: Population is the entire set of individuals of interest to a researcher. Although the entire population usually does not participate in a research study, the results from the study are generalized to the entire population. The population of this study consists of corporate and individual taxpayers in Yenagoa, Bayelsa State.

Sample, Sampling Technique & Sample Size: Sample is a representative subset of the population. It comprises some members selected from the population. According to Appah (2020) sampling is the process of selecting enough elements from a population to represent the properties or characteristics of that population. This study adopted nonprobability sampling technique of convenience to determine the number of individuals selected for the study. A sample size of 385 customers was derived using Cochran (1977) standard formula. According to Appah (2020), this formula was preferred because it is used for an infinite population size. The formula computation is presented as follows:

$$n = \frac{Z^2 \times P \times (1 - P)}{C^2}$$

$$= \frac{1.96 \, X \, 1.96 \times 0.5 \times (1 - 0.5)}{0.052 \, X \, 0.52}$$

$$= 384.16 => 385$$

Z = Z-value (e.g 1.96 for a 95% Confidence level)
P = Population proportion in percentage expressed as decimal 50% (0.5).
C = Confidence interval or margin of error allowable in the sample estimate of population which is valued to be 5% (0.05)

Sources of Data: This study used primary and secondary sources of data. The primary sources are that information collected by the researcher for his or her own purpose whereas the secondary sources are those which are made available or have been collected for other research purposes (Appah, 2020).

Instrument for Data Collection: Data collection is the method of gathering relevant information for use in addressing research questions and hypotheses testing (Appah, 2020). Data used for this study were collected from a questionnaire titled "Legal and Administrative Efficiency of VAT Questionnaire (LADVAT). The questionnaire is divided into two sections. The first section of the questionnaire provides vital personal information of the respondents while the second section consists of questions consisting of statements measuring respondents' perceptions on cryptocurrency and financial inclusion. The questionnaire was designed using a five-point Likert scale ranging from strongly agree (5) to strongly disagree (1). The study utilized financial inclusion as the measurement for dependent variable while the independent variable was cryptocurrency adopted from prior studies with some modifications. The statement used Likert-type scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD) while the respondents were required to indicate by a ticking against the option that best expressed their opinion on the association between the dependent and independent variable. A total of two hundred and ninety-seven (297) questionnaires were returned and used for data analysis.

Validity Instrument: Validity refers to the issue of whether an indicator that is devised to gauge a concept measure that concept. The validity of this study rests on an overall evaluative judgment

founded on empirical evidence and theoretical rationales of adequacy, appropriateness of inferences and action based on the test scores. This study used content and face validity, where the instrument was given to academics and professionals who read through and made necessary corrections. Face validity refers to the extent to which a measure or assessment appears to measure what it claims to measure (Appah, 2020).

Reliability of Instrument: Reliability is the consistency of the measurement. According to Gravetter & Forzano (2019), reliability of a measurement procedure is the stability or consistency of the measurement. The reliability of a measure indicates the extent to which it is without bias or error and hence ensures consistent measurement across time and the various items in the instrument. The study questionnaires were tested using test-retest reliability. The instruments were administered to twenty (20) of the target subjects who were not part of the respondents, and after two weeks, the same instruments were again given to the same twenty (20) respondents to ascertain reliability. Crobach Alpha (α) was used to ascertain the statistical reliability of the research instrument, with a good degree of reliability as follows:

Table 1: Reliability Statistics

Construct	Number of items	Cronbach Alpha
Clarity of VAT law (CTL)	5	0.724
Fairness of VAT exemption (FOE)	5	0.743
Taxpayer awareness of VAT regulation (TAR)	5	0.748
Enforcement of VAT Collection (ENC)	5	0.734
Efficiency of VAT collection (EFC)	5	0.721
Adoption of Digital VAT Collection (ADC)	5	0.757
Revenue Generation (REG)	5	0.762

Source: Authors' Survey (2025)

Methods of Data Analysis: Consistent with positive research philosophy and quantitative design, the technique of inferential analysis in this study was parametric statistics. This technique was associated with the use of quantitative models that sought to establish a correlational relationship between two variables by using sample-based parameters as measures to infer about the population of the study. The data analysis was conducted using descriptive statistics, a correlation matrix, and multiple regression analysis. The multiple regression analysis was guided by the linear model below:

$$REG = \beta_0 + \beta_1 CTL + \beta_2 FOE + \beta_3 TAR + \beta_4 ENC + \beta_5 EFC + \beta_6 ADC \quad e \text{ -------------------------- (1)}$$

Where:
REG = Revenue Generation; CTL =Clarity of Tax Laws; FOE = Fairness of Exemption; TAR = Taxpayers' Awareness of Regulations; ENC = Enforcement of VAT Collection; EFC = Efficiency

of VAT Collection; ADC = Adoption of Digital VAT Collection; $\beta_0 - \beta_6$ represents the regression coefficient, while represents the error term and the a priori expectation disclosed as $\beta_1 - \beta_6 > 0$.

RESULTS AND DISCUSSION

Table 2: Questionnaire Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Number returned and correctly filled	297	77.1	77.1	77.1
	Number returned and not correctly filled	36	9.4	9.4	86.5
	Number not returned	52	13.5	13.5	100.0
	Total	385	100.0	100.0	

Source: Field Survey (2025) Via **SPSS Output**

A total of three hundred and eighty-five (385) copies of the questionnaire were distributed to the respondents. Out of this number, two hundred and ninety-seven (297) representing 77.1% response rates were correctly filled and returned, while fifty-two (52) copies representing 13.5% were not returned. However, thirty-six (36) representing 9.4% were returned but not correctly filled and therefore rejected. The implication is that the analysis of data will be based on two hundred and ninety-seven (297), representing 77.1% response rates were correctly filled and returned.

Univariate Analysis

In this part of the study, univariate analysis has been done on various variables and presented in tables 3 to 6 respectively. Using the modified Likert scale, the keys to the tables are as KEY: SA= Strongly Agree, A= Agree, UD= Undecided, D= Disagree, SD= Strongly Disagree

Table 3: Descriptive Statistics of Clarity of Tax Laws

S/N	Items	N	Min	Max	Mean	Std. D
1	I believe that clearer tax laws would encourage voluntary tax compliance.	297	1.00	5.00	3.539	1.294
2	Tax guidelines and circulars issued by the relevant tax authorities improve the clarity of tax laws.	297	1.00	5.00	3.752	1.263
3	Tax policies are communicated in a transparent and easy-to-understand manner.	297	1.00	5.00	3.427	1.215
4	Tax laws provide clear guidelines on the rights and obligations of taxpayers.	297	1.00	5.00	3.145	1.234
5	The objectives and intentions of tax laws are clearly stated.	297	1.00	5.00	3.753	1.242
	Valid N (listwise)	**297**			**3.482**	**1.272**

Source: Field Survey (2025)

The results in Table 3 show the descriptive statistics of the mean and standard deviation responses on the clarity of tax laws of questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on the clarity of tax laws. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.482; Std. D =1.272**), respectively. This implies that the clarity of tax laws is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 4: Descriptive Statistics of Fairness of Exemption

S/N	Items	N	Min	Max	Mean	Std. D
1	VAT exemptions are applied fairly across all sectors of the economy.	297	1.00	5.00	3.709	1.315
2	The criteria for granting VAT exemptions are transparent and objective.	297	1.00	5.00	3.486	1.303
3	VAT exemptions do not create an unfair advantage for certain industries or businesses.	297	1.00	5.00	3.522	1.300
4	The list of VAT-exempt goods and services is based on fairness and social need.	297	1.00	5.00	3.717	1.227
5	The government provides adequate justification for items granted VAT exemptions.	297	1.00	5.00	3.932	1.210
	Valid N (listwise)	**297**			**3.673**	**1.258**

Source: Field Survey, 2025

The results in Table 4 indicate the descriptive statistics of the mean and standard deviation responses on the fairness of value-added tax exemptions questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on the fairness of value-added tax exemptions. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.673; Std. D =1.258**), respectively. This implies that the fairness of value-added tax exemptions is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 5: Descriptive Statistics of Taxpayers' Awareness of VAT Regulations

S/N	Items	N	Min	Max	Mean	Std. D
1	I am aware of the goods and services that are subject to VAT in Nigeria.	297	1.00	5.00	3.609	1.293
2	I know the current VAT rate applicable in Nigeria	297	1.00	5.00	3.812	1.268
3	I understand the penalties for non-compliance with VAT regulations.	297	1.00	5.00	3.609	1.365
4	The tax authorities have provided me with sufficient information on VAT regulations.	297	1.00	5.00	3.581	1.273
5	I am aware of my rights as a taxpayer under the VAT law.	297	1.00	5.00	3.601	1.290
	Valid N (listwise)	**297**			**3.642**	**1.298**

Source: Field Survey (2025)

The results in Table 5 reveal the descriptive statistics of the mean and standard deviation responses on taxpayers' awareness of VAT regulations questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on taxpayers' awareness of VAT regulations. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.673; Std. D =1.258**), respectively. This implies that the taxpayers' awareness of VAT regulations is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 6: Descriptive Statistics of Enforcement of VAT Collection

S/N	Items	N	Min	Max	Mean	Std. D
1	The government effectively enforces the collection of VAT from businesses.	297	1.00	5.00	3.709	1.315
2	Tax authorities regularly monitor compliance with VAT regulations.	297	1.00	5.00	3.486	1.303
3	VAT enforcement measures are applied fairly and consistently across all taxpayers.	297	1.00	5.00	3.522	1.300
4	Enforcement of VAT collection encourages voluntary compliance among taxpayers.	297	1.00	5.00	3.717	1.227
5	The tax authority (FIRS) carries out adequate tax audit to ensure VAT compliance	297	1.00	5.00	3.932	1.210
	Valid N (listwise)	**297**			**3.753**	**1.228**

Source: Field Survey (2025)

The results in Table 6 represent the descriptive statistics of the mean and standard deviation responses on the enforcement of VAT Collection questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on enforcement of VAT Collection. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.753; Std. D =1.228**), respectively. This implies that the enforcement of VAT Collection is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 7: Descriptive Statistics of Efficiency of VAT Collection

S/N	Items	N	Min	Max	Mean	Std. D
1	VAT Collection procedures are straightforward for taxpayers.	297	1.00	5.00	2.709	1.315
2	The current system of VAT collection minimizes administrative costs for both the government and businesses	297	1.00	5.00	2.486	1.303
3	VAT revenues are collected on time without unnecessary delays.	297	1.00	5.00	2.522	1.300
4	The electronic platforms for VAT filing and payment function efficiently.	297	1.00	5.00	3.717	1.227
5	The efficiency of VAT collection has contributed to increased government revenue	297	1.00	5.00	3.932	1.210
	Valid N (listwise)	**297**			**2.854**	**1.234**

Source: Field Survey (2025)

The results in Table 7 reveal the descriptive statistics of the mean and standard deviation responses on the efficiency of VAT Collection questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on the efficiency of VAT Collection. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =2.854; Std. D =1.234**), respectively. This implies that the efficiency of VAT Collection is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 8: Descriptive Statistics of Adoption of Digital VAT Collection

S/N	Items	N	Min	Max	Mean	Std. D
1	The introduction of digital platforms has made VAT collection easier for businesses.	297	1.00	5.00	3.709	1.315
2	I find the online VAT filing and payment systems user-friendly.	297	1.00	5.00	3.486	1.303
3	Digital VAT collection has reduced the time required for compliance	297	1.00	5.00	3.522	1.300
4	The use of digital platforms has minimised errors in VAT filing and payments	297	1.00	5.00	3.717	1.227
5	Digital VAT collection enhances transparency in tax administration.	297	1.00	5.00	3.932	1.210
	Valid N (listwise)	**297**			**3.795**	**1.258**

 Source: Field Survey (2025)

The results in Table 8 reveal the descriptive statistics of the mean and standard deviation responses on the adoption of digital VAT Collection questionnaire items that were designed on a five-point Likert scale. Thus, the questionnaire items were labelled, and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on the adoption of digital VAT Collection. Notwithstanding, all the items mean items above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean = 3.795; Std. D =1.258**), respectively. This implies that the adoption of digital VAT Collection is a significant predictor of revenue generation in Yenagoa, Bayelsa State, Nigeria.

Table 9: Descriptive Statistics of Revenue Generation

S/N	Items	N	Min	Max	Mean	Std. D
1	VAT contributes meaningfully to the diversification of the state's revenue away from oil dependence.	297	1.00	5.00	3.358	1.358
2	VAT revenue is a reliable and consistent source of income for government development projects.	297	1.00	5.00	3.836	1.239
3	Revenue from VAT has enhanced the government' ability to provide infrastructure and public services.	297	1.00	5.00	3.278	1.336
4	Strengthening VAT administration is essential for increasing government revenue.	297	1.00	5.00	3.352	1.262
5	Higher levels of VAT compliance directly translate to improved revenue performance	297	1.00	5.00	3.248	1.285
	Valid N (listwise)	**297**			**3.414**	**1.296**

 Source: Field Study (2025)

Table 8 represents the descriptive statistics of the mean and standard deviation responses on the revenue generation variable using five questionnaire items that were designed on a five-point

Likert scale. Thus, the questionnaire items labelled above and the mean and standard deviation of the five items were calculated to determine the overall mean and standard deviation responses on revenue generation. Notwithstanding, all the items are above the cut-off point of 2.5. However, the grand mean and standard deviation responses on the questionnaire items disclosed (**Mean =3.414 Std. D =1.296**) respectively. Consequently, this implies that revenue generation is a significant predictor of tax collection in Bayelsa State, Nigeria.

Table 10: Multiple Regression Analysis
Dependent Variable: REG
Method: Least Squares
Date: 07/12/25   Time: 13:23
Sample(adjusted): 1 297
Included observations: 297 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.275444	2.256856	1.451330	0.1488
CTL	0.273341	0.123184	2.218965	0.0423
FOE	0.284753	0.148523	2.847532	0.0234
TAR	0.287452	0.134273	2.182735	0.0182
ENC	0.382834	0.182347	2.394851	0.0327
EFC	0.238474	0.283415	2.398345	0.0374
ADC	0.234756	0.112637	2.126453	0.0486
R-squared	0.684752	Mean dependent var		12.99346
Adjusted R-squared	0.558733	S.D. dependent var		3.098167
S.E. of regression	2.888766	Akaike info criterion		4.997962
Sum squared resid	1226.711	Schwarz criterion		5.116803
Log likelihood	-376.3441	F-statistic		5.567008
Durbin-Watson stat	2.718372	Prob(F-statistic)		0.000100

Source: e-view output

Table 10 shows the multiple regression analysis for the relationship between the legal and administrative efficiency of the value-added tax and revenue generation in Bayelsa State, Nigeria. The findings revealed a positive and significant $(0.042 < 0.05)$ relationship between clarity of VAT tax law (CTL) and revenue generation in Bayelsa State, Nigeria. A positive and significant $(0.23 < 0.05)$ relationship between the fairness of VAT exemptions and revenue generation in Bayelsa State, Nigeria. A positive and significant $(0.018 < 0.05)$ relationship between taxpayer awareness of VAT regulations (TAR) and revenue regulation in Bayelsa State, Nigeria. A positive and significant $(0.032 < 0.05)$ relationship between enforcement of VAT collection and revenue generation in Bayelsa State, Nigeria. A positive and significant $(0.037 < 0.05)$ relationship between efficiency of VAT collection and revenue generation in Bayelsa State, Nigeria and a positive and significant $(0.048 < 0.05)$ adoption of digital VAT collection and revenue generation in Bayelsa State, Nigeria. Consequently, the findings disclosed that legal and administrative efficiency positively and significantly influence revenue generation in Bayelsa State, Nigeria. The R^2 (coefficient of determination) of 0.684752 and adjusted R^2 of 0.558733 show that the variables combined determine about 68%% and 56% of legal and administrative efficiency items' impact on revenue generation in Bayelsa State, Nigeria. The F-statistics and its probability show that the regression equation is well formulated, explaining that the relationship between the variables

combined affects revenue generation in Bayelsa State of Nigeria is statistically significant (F-stat = 5.567008; F-prob. = 0.000100).

Discussion of Findings

Clarity of VAT Tax Law and Revenue Generation: The result from hypothesis testing showed a significant and positive relationship between clarity of VAT tax law and revenue generation in Yenagoa, Bayelsa State, Nigeria. The result from this study is in line with the research carried out by Khalifan et al (2020) in Zanzibar. The findings of the study revealed that income tax law simplification had a positive and statistically significant effect on self-reported tax compliance. The authors report that perceived simplicity explains about 25% of variance in compliance among medium taxpayers. The implication of their study suggested that clearer, readable tax laws reduce compliance costs and raise voluntary compliance. In a similar study done by Satyadini and Rosid (2024) in Indonesia revealed that simplification of the tax system improves revenue collection but must be supported by access and infrastructure. Also, Agwor and Wami (2023) examined the legal and institutional framework regulating tax collection in Nigeria explained legal consolidation and simplification of Nigeria's tax laws into a unified tax code would enhance clarity. The authors further argued that enhancing taxpayer education improve compliance and boost revenue generation. Consequently, this study concludes that the clarity and simplification of VAT tax laws improves the level of revenue generation in Nigeria.

Fairness of VAT Exemption and Revenue Generation: The result from hypothesis testing indicated a significant and positive relationship between fairness of VAT exemption and revenue generation in Yenagoa, Bayelsa State, Nigeria. The outcome of this investigation agrees with the study done by Oladipo et al (2022) on tax fairness and tax knowledge on tax compliance behaviour in Nigeria. The study findings indicated that perceptions of tax fairness had a significant impact on compliance, suggesting that unfairness undermines compliance. Hence, when taxpayers perceive the tax system as unfair, they are less likely to comply, which hurts revenue and improving both fairness and tax literacy can boost compliance and revenue collection. Also, the investigation done Ethiopia by Adem et al (2024) on the determinants of tax compliance suggested that the sense of equity and fairness significantly influence both voluntary and enforced compliance. The study further revealed that when fairness is perceived, tax morale improves thereby enhancing revenue generation. Furthermore, Castaneda (2023) study of fairness and tax morale in developing countries showed that perceptions of fairness strongly affect tax morale: individuals who believe the tax system is unfair are less likely to agree that paying taxes is a civic duty. The study noted that strengthening fairness through transparent tax policy, equitable exemptions, and visible use of revenue for public goods can enhance both voluntary compliance and revenue collection. Hence, this study concludes that fairness in tax exemptions enhances the revenue generating capacity of the government.

Taxpayer Awareness of VAT regulation and Revenue Generation: The result from hypothesis disclosed a significant and positive relationship between taxpayer awareness of VAT regulation and revenue generation in Yenagoa, Bayelsa State, Nigeria. The findings of this study concur with the investigation conducted by Yerima et al (2022) in Jalingo Local Government in Taraba State,

Nigeria. The findings of Yerima et al (2022) suggested that tax awareness had a positive and significant effect on compliance and that tax knowledge also showed a strong positive effect, meaning that better understanding of VAT and income tax laws increases willingness to comply. The implication of their study was that increased taxpayer awareness directly improves compliance, thereby enhancing revenue mobilization. Furhermore, Adebisi and Gbegi (2020) investigated taxpayer awareness and tax compliance in Oyo State, Nigeria. The outcome of their study revealed that several taxpayers lacked adequate awareness of tax obligation and that tax education programs significantly increased compliance rates. The implication of their study suggested that awareness campaigns such as seminars, workshops, media outreach improves remittance of PAYE and personal income taxes. In addition, the study done by Adhiambo and Theuri (2024) in Kenya on taxpayer awareness and compliance cost disclosed that taxpayer awareness (education) had a positive and statistically significant effect on tax compliance. The implication of the finding shows that educating taxpayers about tax regulations makes them likely to comply, therefore, expanding tax knowledge that can directly improve revenue collection. Accordingly, this study concludes that the taxpayer awareness increases the level of revenue generation using all available administrative instruments.

Enforcement of VAT Collection and Revenue Generation: The result from hypothesis testing suggested a significant and positive relationship between enforcement of VAT collection and revenue generation in Yenagoa, Bayelsa State, Nigeria. The result of this study agrees with the study carried out by Okunogbe and Pouliquen (2022) in Tajikistan on the adoption of electronic tax filing using a randomized based design. The results indicate that e-filing makes tax enforcement more equitable and efficient by reducing compliance costs, curbing corruption and aligning payment burdens more fairly across firms. The result also agrees with the study done by Waseem (2022) in Pakistan using micro-administrative data. The study disclosed that VAT withholding significantly boost compliance and revenue generation in Pakistan by complementing the VAT's self-enforcement mechanism, especially in environment with weak tax administration. Furthermore, the study of Adan et al (2023) explained that comprehensive tax administration reforms such as better audits, risk-based compliance, large-taxpayer units, IT systems are linked with large increases in tax-to-GDP ratios. The IMF's cross-country analysis finds that moving tax-administration strength from the 40thth to the 60 percentiles is associated with +1.8% point of GDP in tax revenue. Consequently, this study concludes that the enforcement of VAT collection framework increases the level of revenue generation using all available administrative instruments such as better audits, risk-based compliance, large-taxpayer units and IT systems.

Efficiency of VAT Collection and Revenue Generation: The result from hypothesis testing revealed a significant and positive relationship between efficiency of VAT collection and revenue generation in Yenagoa, Bayelsa State, Nigeria. The findings from this study agree with the study carried out by Waseem (2022) in Pakistan using micro-administrative data. The study disclosed that VAT withholding significantly boost compliance and revenue generation in Pakistan by complementing the VAT's self-enforcement mechanism, especially in environment with weak tax administration. Additionally, the outcome of our study is in line with the studies conducted by Okunogbe and Pouliquen (2022) in Tajikistan on the adoption of electronic tax filing using a randomized based design. The results indicate that e-filing makes tax enforcement more equitable and efficient by reducing compliance costs, curbing corruption and aligning payment burdens more

fairly across firms. Therefore, this study concludes that the efficiency of VAT collection increases the level of revenue generation using all available legal and administrative instruments.

Adoption of Digital VAT Collection and Revenue Generation: The result from hypothesis testing showed a significant and positive relationship between adoption of digital VAT collection and revenue generation in Yenagoa, Bayelsa State, Nigeria. The finding from this study concurs with the investigation conducted by Olasunkanmi and Adejuwun (2023) that investigated the relationship between value-added tax automation and revenue generation in Nigeria. The findings of the study suggested that the adoption of TaxPro Max by the Federal Inland Revenue Service (FIRS) as a digital tax collection platform showed significantly positive relationship on revenue generation in Nigeria. Similarly, IMF analysis (2023) disclosed that an increase in electronic filling adoption by 50% would increase tax revenue by 1.6% of GDP in low income and developing countries, primarily through timelier payments and reduced compliance frictions. Also, the study of Bellon et al (2022) revealed that electronic invoicing increases firm tax compliance and improved reported outcomes, pointing to higher VAT collections where e-invoicing is adopted. Additionally, the study conducted by Adejuwon and Olasunkanmi (2023) on tax digitalization revealed that tax digitalization has a significant positive relationship with tax revenue. Their study concluded that embracing digital tax processes such as e-filling, automated systems, e-clearance issuance can curb tax evasion, minimize tax risk, and improve revenue performance in Nigeria. Consequently, this study concludes that adoption of digital VAT collection increases the level of revenue generation using all available electronic tax collection platforms.

Conclusion, Policy Implications, Limitations and Further Studies
This study explored the legal and administrative efficiency of value-added tax and revenue generation in Yenagoa, Bayelsa State, Nigeria. The study grounded on the optimal taxation theory. The study used survey research design with a population consisting of all taxpayers in Yenagoa and nonprobability sampling technique of convenience was employed to determine the number of taxpayers selected for the study with a sample size of 385 participants derived using Cochran standard formula. Also face and content validity were employed, and Cronbach was used to determine the reliability of instrument with questionnaire as the major instrument of data collection. The responses from the questionnaire were analysed using univariate and multivariate analysis using the multiple regression technique. The regression analysis results suggested a significantly positive relationship between clarity of value added tax law and revenue generation in Bayelsa State, Nigeria; a significantly positive relationship between fairness of value added tax exemption and revenue generation in Bayelsa State, Nigeria; a significantly positive relationship between taxpayers awareness of value added tax regulation and revenue generation in Bayelsa State, Nigeria; a significantly positive relationship between enforcement of value added tax collection and revenue generation in Bayelsa State, Nigeria; a significantly positive relationship between efficiency of value added tax collection and revenue generation in Bayelsa State, Nigeria; and a significantly positive relationship between the adoption of digital value added tax collection and revenue generation in Bayelsa State, Nigeria. Consequently, the study concluded that legal and administrative efficiency have a significantly positive relationship on revenue generation.

The policy implications of the association between legal and administrative efficiency on revenue generation. are:

1. Since legal efficiency significantly boosts revenue, policymakers should review, consolidate and update VAT laws to remove ambiguities and close loopholes. Clearer provisions on VAT registration, exemptions, and penalties will enhance loopholes and harmonization of VAT provisions will provide legal certainly and prevent revenue leakages.
2. Efficient administration such as effective taxpayer registration, accurate invoicing, timely filling, and digitalized collection systems leads to higher revenue. Hence, policymakers should prioritize digital VAT platforms to minimise human error, corruption, and underreporting. Also, staff capacity-building in the Federal Inland Revenue Service (FIRS) should be intensified to ensure professionalism and efficiency in VAT management.
3. If efficient administration boosts VAT revenue, simplifying processes like online filling, mobile payment platforms, and automated receipts will encourage voluntary compliance. Policies should also ensure taxpayer education campaigns, so businesses and consumers understand VAT obligations and the benefits of compliance.
4. Given the Federal Structure of VAT collection in Nigeria, Policymakers in Bayelsa State, should strengthen collaboration with the Federal Inland Revenue Service (FIRS) to improve VAT administration and ensure the state receives its fair share of allocations. Hence, legal clarity will reduce litigation between states and federal authorities over VAT collection rights, ensuring revenue stability for Bayelsa State.
5. A strong legal and administrative framework can minimise evasion, underreporting, and unregistered businesses in the informal sector. Policymakers should therefore focus on formalizing small and medium enterprises (SMEs) in Bayelsa State through incentives and simplified VAT compliance system.
6. Policies should provide for specialised tax courts or tribunals in Bayelsa State to handle tax mostly VAT-related disputes swiftly and fairly. Strong legal backing for compliance monitoring including audits and sanctions ensure consistent revenue inflow.

VAT in Nigeria is basically collected by the Federal Inland Revenue Service (FIRS), with states only receiving allocations. This federal dominance may limit the extent to which Bayelsa State legal and administrative efficiency alone can directly influence VAT revenue generation. Therefore, the relationship may be constrained by intergovernmental fiscal arrangements beyond the control of Bayelsa State. Assessing legal efficiency and administrative efficiency is complex and may rely on subjective perceptions pr proxy indicators such as number of litigations, tax collection timeliness etc. This limitation could affect the precision of findings regarding their actual impact on VAT revenue generation. Fluctuations in economic activity, inflation, business closures, and purchasing power in Bayelsa State can significantly affect VAT revenue, regardless of how efficient legal and administrative framework are. This makes it difficult to isolate efficiency as the sole driver of VAT revenue performance. Legal and administrative reforms often take time before their effects on revenue generation materialize. Short-term studies may therefore

underestimate or fail to capture the full relationship. Political interference, corruption, and weak institutional independence may hinder the enforcement of VAT laws, thereby diluting the relationship between efficiency and revenue outcomes. Accurate VAT data may be limited due to poor record-keeping, underreporting by businesses, underreporting by businesses, and lack of transparency in revenue sharing between federal and state agencies.

Following the limitations of this study, the following recommendations are provided for further research:

1. Future research could compare Bayelsa State with other Nigerian states to examine how differences in legal frameworks, administrative structures, and political will affect VAT revenue outcomes. Such comparative analysis would reveal whether Bayelsa's case is unique or part of broader national patterns.
2. Most studies, including this one, adopt cross-sectional designs. Further studies should employ longitudinal designs to capture time-lags effects of legal reforms and administrative improvements. This would help identify whether efficiency impacts are short-lived or sustainable in the long run.
3. Further research could disaggregate VAT revenue across sectors such as oil & gas, retail trade, hospitality, and manufacturing to assess how legal and administrative efficiency impacts sector-specific VAT compliance. This would provide policymakers with targeted insights for revenue mobilization.
4. With the rise of e-filling, e-invoicing, and digital payment platforms, more research is needed to examine how digital innovations in tax administration interact with legal frameworks to influence VAT revenue. Special attention could be given to their effectiveness in curbing corruption and leakages.
5. Future research should expose moderating variables such as political stability, corruption levels, tax culture, and informal sector dominance. Mediating factors such as taxpayer education, institutional trust, and enforcement mechanisms could also be empirically tested.
6. Given ongoing litigations over VAT collection rights between states and the federal government, research could examine how judicial interpretation of VAT laws impact administrative efficiency and actual revenue inflows at the state level.

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REFERENCES

Adan, H., Atsebi, J.-M. B., Gueorgulev, N., Honda, J., & Nose, M. (2023). Quantifying the revenue yields from tax administration reforms (IMF Working Paper WP/23/231). International Monetary Fund. https://doi.org/10.5089/9798400258923

Adebisi, J. F., & Gbegi, D. O. (2020). Taxpayer awareness and tax compliance in Oyo State, Nigeria. *Journal of Accounting and Taxation,* 12(3), 45 – 56.

Adejuwon, J. A., & Olasunkanmi, F. O. (2023). Tax digitalization and problem of revenue collection in Nigeria. *International Journal of Research Journal of Economics and Management Studies,* 2(4), 271 – 284. https://doi.org/10.56472/25835238/IRJEMS-V2I4P131

Adhiambo, O. J., & Theuri, J. M. (2024). Effect of taxpayer awareness and compliance costs on tax compliance among small-scale traders in Nakuru Town, Kenya. International Academic Journal of Economics and Finance, 3(3), 279 – 300. https://www.iajournals.org/index.php/8-articles/566-iajef-v3-i3-279-300

Anyaduba, J. O. (2022). Taxation and revenue generation in Nigeria: Issues and challenges. *Journal of Accounting and Taxation Studies*, 14(2), 45 – 59.

Appah, E. (2020). *Research methodology: Principles, methods and techniques,* Ezevin Printing and Publishing Ventures.

Appah, E., Eburunobi, E.O. & Brown, B. M.(2023a). The moderating role of inflation on the relationship between direct taxes and economic development in Nigeria. *African Journal of Accounting and Financial Research, 6(3),* 36 - 67.

Appah, E., Eburunobi, E.O. & Brown, B. M.(2023b). Moderating role of financial development on the relationship between tax revenue and economic development of Nigeria. *International Journal of Developing and Emerging Economies, 11(2),* 17- 41.

Appah, E. & Duoduo, G. (2023). Tax determinants and sustainable economic growth of MSMEs in South – South, Nigeria. *European Journal of Accounting, Auditing and Finance Research, 11(4),* 15 – 46.

Bellon, M., Dabla-Norris, E., Khalid, S., & Lima, F. (2022). Digitalisation to improve tax compliance: Evidence from VAT e-invoicing in Peru. *Journal of Public Economics,* 210, 104661. https://doi.org/10.1016/j.jpubeco.2022.104661

Bird, R. M., & Gendron, P. P. (2023). *The VAT in developing and transitional countries.* Cambridge University Press.

Castaneda, N. (2023). Fairness and tax morale in developing countries. *Studies in Comparative International Development,* 59(1), 113 – 137. https://doi.org/10.1007/s12116-023-09394-z

Cochran, W. G. (1977). Sampling techniques (3red), John Wiley and Sons Inc.

Diamond, P., & Saez, E. (2011). The case for a progressive tax: From basic research to policy recommendations. *Journal of Economic Perspectives,* 25(4), 165 – 190. https://doi.org/10.1257/jep.25.4.16

Doyle, E. (2022). Encouraging ethical tax compliance behaviour: The role of tax practitioner in enhancing tax justice. *Law and Contemporary Problems, 85(4),* 136 – 155.

Efuntade, A.O. (2020). Value-added tax and its effect on revenue generation in Nigeria. *KIU Interdisciplinary Journal of Humanities and Social Sciences,* 1(2), 353-369.

Egolum, P. U., & Ugonabo, C. U. (2022). The effect of value-added tax on economic development in Nigeria (1994 – 1998). *IOSR Journal of Humanities and Social Science*, 26(5), 21 – 30.

Federal Inland Revenue Service (2023). *Value Added Tax (VAT) guidelines.* Abuja: FIRS.

Gunel, T. & Didinmez, I. (2022). Relationship between rule of law and tax revenue: Dynamic panel data analysis. *Public Sector Economics, 46(3),* 403 – 418.

International Monetary Fund. (2024a). *Revenue mobilization and tax policy reforms in developing countries*. Washington, D. C. IMF Working Paper Series.

International Monetary Fund (2024b). *Domestic resource mobilization for sustainable development.* Washington, D. C. IMF Working Paper Series.

International Monetary Fund (2023). Exploring the adoption of selected digital technologies in Tax Administration. IMF Note.

Khalifan, S. S., Kitindi, E. G., & Chalu, H. (2020). Income tax law simplification and tax compliance: A case of medium taxpayers in Zanzibar. Business Management Review, 23(1), 1 – 18. https://journals.udsm.ac.tz/index.php/bmr/article/view/3484

Kunwar, K. B. (2023). Impact of value added tax on revenue generation in Nepal: An ARDL approach. *Journal of Tikapur Multiple Campus,* 6(6), 1- 14.

Kurniawan, D. (2020). The influence of tax education during higher education on tax knowledge and its effect on personal tax compliance. *Journal of Indonesian Economy and Business, 35(1),* 57 – 72.

Mirrlees, J. A. (1971). An exploration in the theory of optimum income taxation. *Review of Economic Studies*, 38(2), 175 – 208.

Musgrave, R. A., & Musgrave, P. B. (1989). *Public finance in theory and practice* (5th ed.). McGraw-Hill.

Myles, G. D. (1995). *Public economics.* Cambridge University Press.

Odunisi, O. T. (2022). Value-added tax, revenue generation and growth in Nigeria. *ACU Journal of Social and Management Sciences,* 3(1), 201 – 212.

Ojochogwu, W., & Enakirehi, L. (2022). Value added tax and revenue performance in Nigeria. *Journal of Finance and Economic Development,* 10(1), 87- 99.

Okolo MN, Sinebe MT, Monday Chukwugeku I, Ifeanyi OP, Nze Kingsley A. (2025). Value-added tax from the digital economy and information technology funds for revenue generation. *Salud, Ciencia y Tecnología - Serie de Conferencias*. 2025; 4:1394. https://doi.org/10.56294/ sctconf20251394.

Okunogbe, O., & Pouliquen, V. (2022). Technology, taxation, and corruption: Evidence from the introduction of electronic filing. America Economic Journal: Economic Policy, 14(1), 241 – 372. https://doi.10.12571.pol.20200123

Oladipo, F., Nwanji, T., Eluyela, D., Godo,B., & Adegboyegun, A. (2022). Impact of tax fairness and tax knowledge on tax compliance behaviour of listed manufacturing companies iin Nigeria. Progress in Public Management, 20(1), 41 – 48. https://dx.doi.org/10.21511/ppm.20(1).2022.04

Olaoye, C. O. & Afolabi, B. (2023). Revenue generation and infrastructural development in sub-Saharan Africa. *African Journal of Economic Policy*, 30(1), 112 – 128.

Olasunkanmi, F. O. & Adejuwun, J. A. (2023). Value-added tax automation and revenue generation in Nigeria. *International Journal of Economics and Management Studies,* 2(4), 225 – 236.

Omesi, I. & Appah, E. (2022). Tax enforcement strategies and revenue generation in Nigeria, *International Journal of Innovative Research and Advanced Studies, 10(1)*, 92 – 111.

Organisation for Economic Co-operation and Development (OECD). (2024). *Consumption tax trends 2024.* OECD Publishing.

Orisadare, M., A. & Fasoye, K. (2022). The effects of value-added tax and economic growth of Nigeria. *African Journal of Economic Review,* 10(1), 158 – 170.

Ramsey, F. P. (1927). A contribution to the theory of taxation. *Economic Journal*, 37(145), 47 – 61. https://doi.org/10.23

Satyadini, A., & Rosid, A. (2024). Does tax simplification motivate small businesses to be more compliant? Evidence from a regression discontinuity in Indonesia. *Bulletin of Indonesian Economic Studies,* 60(2), 217 – 238. https://doi.org/10.1080/00074918.2023.2252746

Slemrod, I. B. (2020). *The impact of the Tax Reform Act of 1986 on foreign direct investment to and from the United States.* NBER Working Paper, (w3234).

Usang, O. U. E. & Etim, U. A. (2021). Effect of tax administration and taxpayer education on tax compliance behaviour. *Journal of Taxation and Economic Development, 20(2),* 1 – 10.

Uzonwanne, M. C. (2021). Tax reforms and revenue performance in Nigeria: An evaluation of the VAT increase. *Nigerian Journal of Public Finance,* 8(2), 55 – 72.

Waseem, M. (2022). The role of withholding in the self-enforcement of a value-added tax. *Review of Economics and Statistics*, 104(2), 336 – 352. https://doi.org/10.1162/rest_a_00875

Yerima, U., Nymphas, V. A., Emmanuel, A.A. & Sani, Y. U. (2022). Effects of tax awareness, knowledge and social costs on tax compliance of SMEs operators in Jalingo LGA, Taraba State, Nigeria. *SAPIENTIA Global Journal of Arts, Humanities and Development Studies,* 5(2), 101 – 112.