

The Impact of MSME Characteristics on Enhancing Voluntary Tax Compliance in Bayelsa State, Nigeria

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Abstract

The impact of Micro, Small, and Medium-Sized Enterprises' (MSMEs') attributes on voluntary tax compliance in Bayelsa State, Nigeria, is examined in this study. Data was gathered from 171 MSME managers using a cross-sectional survey approach and standardized questionnaire; 140 valid replies resulted in an 81.9% response rate. Using regression analysis and Spearman's rank correlation, the study investigates the connections among sectoral differences, business size, ownership structure, profitability, and voluntary tax compliance. The results show that firm size and tax compliance have a substantial positive association ($r = 0.821$), suggesting that larger MSMEs are more likely to follow tax laws. Ownership structure and compliance show a moderate association ($r = 0.600$), indicating that companies with more owners are generally more financially accountable. On the other hand, sectoral differences have a poor connection ($r = 0.218$) with tax compliance, suggesting that compliance behaviour is not considerably impacted by the type of industry. Compliance and profitability have a positive correlation ($r = 0.629$), suggesting that more successful companies are better equipped to pay their taxes. In order to increase compliance rates, the report emphasizes the significance of creating a favourable tax administration regime for MSMEs through customized tax laws and instructional programs. In the end, these findings support economic stability and sustainable development by offering insightful information to stakeholders and policymakers looking forward to enhancing tax compliance and revenue collection in Nigeria's MSME sector.

Keywords: MSMEs, Voluntary Tax Compliance, Business Size, Profitability.

1. Introduction

In developing nations like Nigeria, Micro, small, and medium-sized enterprises (MSMEs) play a vital role in economic growth and development, accounting for over 90% of businesses and contributing significantly to GDP and employment (World Bank, 2022; National Bureau of Statistics [NBS], 2021). Despite their importance, MSMEs face challenges that threaten their sustainability, such as limited access to finance, inadequate infrastructure, and a complex tax system. Effective public finance depends on voluntary tax compliance, which is the willingness to abide by tax regulations and allows governments to finance important services (OECD, 2020). MSMEs in Nigeria have a very low voluntary tax compliance rate, which affects the government's ability to generate income (Federal Inland income Service [FIRS], 2022). Business size, ownership structure, sectoral differences, and profitability are some of the factors that affect compliance.

MSMEs should ideally fulfil their tax obligations to support economic growth. However, because of a lack of financial literacy, a perception of the tax system's complexity, and mistrust of the government's use of tax revenue, many MSMEs in Bayelsa State either evade taxes or underreport their income (BIRS, 2023; Yusoff et al., 2021). These problems are made worse by the informal nature of many MSMEs, which makes it difficult to collect taxes effectively. Improving public trust and guaranteeing sustained economic development need addressing low compliance.

The primary aims of this study are to assess the effect of business size on voluntary tax compliance among MSMEs in Bayelsa State, look into how ownership structure affects voluntary tax compliance, examine

the role of sectoral variations in voluntary tax compliance, and evaluate the relationship between profitability and voluntary tax compliance among MSMEs in the area.

This study advances knowledge about the connection between voluntary tax compliance in Bayelsa State and the attributes of MSME. Policymakers, tax authorities, MSME operators, and researchers will all benefit from the findings, which will enable focused initiatives to raise compliance levels. Given the particular difficulties they encounter, the study focuses on registered MSMEs in Bayelsa State. It looks at how sectoral differences, profitability, ownership structure, and business size affect tax compliance.

2. Literature Review

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in economic development, particularly in Nigeria, where they account for a significant portion of employment and GDP. MSMEs are categorized into three groups based on size: micro-enterprises (fewer than 10 employees and assets below ₦5 million), small enterprises (10-49 employees and assets between ₦5 million and ₦50 million), and medium enterprises (50-199 employees and assets between ₦50 million and ₦500 million) (Eze and Okoye, 2019).

The characteristics of MSMEs significantly influence their tax compliance behaviour. Smaller enterprises often operate informally, which complicates their compliance with tax regulations. In contrast, medium-sized enterprises tend to maintain better records and demonstrate higher compliance levels. Ownership structure also affects compliance; sole proprietorships face more challenges compared to partnerships and corporations, which benefit from shared responsibilities and better advisory services. Additionally, sectoral variations impact compliance behaviour, with regulated sectors typically exhibiting higher compliance due to stricter oversight. Profitability is another critical factor, as more profitable businesses generally have a greater capacity to meet tax obligations, influenced by their perceptions of tax fairness and the effectiveness of public services (NBS, 2021).

MSMEs undergo various growth stages, each affecting their tax compliance. In the existence stage, businesses are often informal and lack awareness of tax laws, leading to low compliance. As they progress to the survival stage, resource limitations may hinder full compliance despite an increased focus on tax obligations. In the success stage, businesses may formalize operations, improving compliance as they seek legitimacy and access to capital. The take-off stage sees rapid growth and complexity, prompting better compliance due to improved internal processes and increased scrutiny from tax authorities. Finally, in the resource maturity stage, businesses with sound financial management and accountability systems typically exhibit high levels of voluntary tax compliance (Omodero & Dandago, 2019).

Theoretical Framework

Theory of Planned Behaviour (TPB) posits that behaviour is influenced by attitudes, subjective norms, and perceived behavioural control. This framework helps explain variations in compliance among MSME operators based on their financial literacy and social influences (Ajzen, 1991). The Theory of Planned Behaviour (TPB) best connects the variable of this paper: business size, ownership structure, sectoral variations, and profitability, with voluntary tax compliance by MSMEs. The reasons TPB is the best option: According to Ajzen's (1991) Theory of Planned conduct, an individual's or entity's conduct is motivated by: Attitudes (such as opinions regarding tax duties and advantages), subjective standards (such as peer pressure or industry norms), and behavioural control that is perceived (e.g., resources and capacity to comply).

Empirical Review

Numerous studies have examined factors influencing tax compliance among MSMEs. Key findings include:

Business Size and Voluntary Tax Compliance

Disparities in administrative capability, information availability, and tax compliance are frequently linked to business size. The slippery slope theory states that taxpayers' compliance behaviour is impacted by their impression of justice and enforcement as well as their ability to pay. Bigger companies might be more able to afford to comply, but they might also be more closely watched by tax officials. According to empirical research, larger MSMEs are more likely to voluntarily comply because of improved accounting systems and more structured operations (e.g., Alm & Torgler, 2006; Wadesango et al., 2019). On the other hand, smaller businesses frequently function informally, which makes voluntary compliance and enforcement more challenging. As a result, this study is formulating the following hypothesis. H01: Business size does not significantly influence voluntary tax compliance of MSMEs in Bayelsa State.

Business size is one of the most frequently studied variables in this context. Research indicates that larger MSMEs are more likely to comply with tax regulations because they have better internal control systems, more resources, and are more visible to tax authorities. Omodero & Dandago (2019), finds a significant positive relationship between business size and compliance, indicating that as businesses grow and formalize their operations, they are more inclined to fulfil their tax obligations. Research has increasingly examined how the structural and organizational characteristics of MSMEs influence their voluntary tax compliance.

Ownership Structure and Voluntary Tax Compliance

The kind of ownership structure of corporation, partnership, or sole proprietorship can affect how business decisions are made, notably those pertaining to tax compliance. According to agency theory (Jensen & Meckling, 1976), various ownership structures have an impact on transparency, control systems, and risk preferences. Due to increased regulatory scrutiny and governance norms, empirical research (e.g., Mukhlis et al., 2018; Saad, 2019) indicates that organizations with more formal or complex ownership structures like limited liability corporations tend to adhere to tax laws more closely. Individually owned companies, on the other hand, could put their own interests ahead of their tax responsibilities. This introduces the second hypothesis.

H2: *Ownership structure does not significantly influence voluntary tax compliance of MSMEs in Bayelsa State.*

Another important factor in explaining compliance behaviour is sectoral variations. Different industries have different operational challenges, audit risks, and regulatory demands, all of which have an impact on how they handle taxes. According to Ocheni and Gemade (2019), MSMEs in more regulated industries, like manufacturing or finance, typically have higher tax compliance rates than those in unregulated industries, like petty trading or agriculture, where financial reporting is often minimal and enforcement is frequently lax.

Although less often studied, the effect of ownership structure on tax compliance is becoming more prominent. The ownership structure of corporation, partnership, or sole proprietorship influences governance, decision-making, and the degree of regulatory supervision. MSMEs with more formal

ownership structures (incorporated companies, for example) are more likely to voluntarily comply with tax laws, according to studies like those by Saad (2014) and Mukhlis et al. (2019). This is primarily because of the increased accountability requirements and the desire to preserve legitimacy in the eyes of stakeholders.

Sectoral Variations and Voluntary Tax Compliance

The legal, operational, and tax systems that various industries operate under can have an impact on compliance behaviour. According to the economic deterrence hypothesis (Allingham & Sandmo, 1972), compliance is impacted by the perceived danger of being caught and facing consequences. While certain industries, like manufacturing, may be more visible and therefore more compliant, others, like professional services or trade, may have higher levels of informality. Studies have demonstrated that due to variations in audit likelihood, cash flow predictability, and business visibility, tax compliance behaviour varies dramatically across industries (Nkwazema & Daniel, 2021).

H3: Sectoral variations do not significantly affect voluntary tax compliance of MSMEs in Bayelsa State.

Profitability and Voluntary Tax Compliance

A company's ability to pay its debts, including taxes, is reflected in its profitability. The ability-to-pay concept states that companies that make more money should also make larger contributions to the government. Because profitable businesses are better equipped to meet their tax duties and are less likely to participate in tax evasion, previous research (e.g., Fagbemi et al., 2010) supports a positive association between profitability and tax compliance. Other studies, however, show that extremely successful businesses could also look for aggressive tax planning techniques to lower tax obligations.

H4: Profitability does not significantly influence voluntary tax compliance of MSMEs in Bayelsa State.

Lastly, it has been demonstrated that tax compliance is strongly impacted by profitability. Because non-compliance could damage their reputation or result in fines that exceed the cost of compliance, more profitable businesses have the ability and motivation to comply. According to the ability-to-pay concept, MSMEs with more profits are more inclined to pay taxes (Fagbemi et al., 2010). Nonetheless, some research warns that extremely successful companies might also use tax evasion tactics to reduce their liabilities, particularly in jurisdictions with lax regulations.

3. Methodology

Research Design

This study employed a cross-sectional survey design, which allows for the collection of data on multiple variables from a specific population at a single point in time. This approach is appropriate for examining groups located in a particular geographical area.

Population of the Study

The research population consists of all registered Micro, Small, and Medium Enterprises (MSMEs) in Bayelsa State. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), there are 300 registered MSMEs in the state. Each manager of these MSMEs was considered as a participant, resulting in a total population of 300 managers.

Sample Size and Sampling Procedure

A sample is a subset selected from a population for study. Given the total population of 300, the study used simple random sampling to ensure a representative sample. The Taro Yamane formula was applied to determine the sample size:

$$n = \frac{N}{1 + N(e)^2} = \frac{300}{1 + 300(0.05)^2} = 171$$

Where:

- n = Sample size sought
- N = Total population size (300)
- e = Level of significance (0.05)

Calculating this yields a sample size of 171 respondents.

Method of Data Collection

Data was collected from primary sources through questionnaires administered to the 171 MSMEs. The questionnaires were retrieved both online and physically.

Validity of the Instrument

Validity measures the extent to which the instrument accurately assesses what it is intended to measure. For this study, content validity was utilized.

Reliability of the Instrument

Reliability refers to the consistency of the scores obtained from the instrument. To assess reliability, the study used a test-retest procedure via SPSS version 23, comparing results from a subset of respondents two months apart. A Cronbach Alpha of 0.7 or higher was considered acceptable for reliability, indicating strong inter-item correlation.

Method of Data Analysis

In order to investigate the associations between variables such as firm size, ownership structure, sectoral variations, profitability, and voluntary tax compliance among MSMEs, the study used regression and correlation analysis. While simple regression analysis analyses the predictive impact of each independent variable on voluntary tax compliance, Spearman's rank correlation evaluates the direction and intensity of connections. The overall significance of the model was assessed using ANOVA (F-test), and the influence of each predictor was quantified using regression coefficients (Beta values). SPSS software was used for the analysis, and a significance level of 0.05 was established.

4. Results and Discussion

This section presents the findings of the study investigating the influence of Micro, Small, and Medium Enterprises (MSMEs) characteristics on voluntary tax compliance in Bayelsa State, Nigeria. A total of 171 structured questionnaires were administered, with 140 valid responses yielding a response rate of 81.9%. This rate exceeds the acceptable threshold for social science research, suggesting that the data collected is representative and reduces potential non-response bias. The response rate indicates that 140 questionnaires were returned, representing 81.9% of the total distributed.

Socio-Demographic Information of Respondents

The socio-demographic profile of the respondents, highlighting gender, age, educational qualifications, business sector, business age, number of employees, ownership structure, and annual revenue. Key findings include:

Variable	Category	Percentage (%)
Gender	Male	50.7
	Female	49.3
Age	26–35 years	26.4
	36–45 years	29.3
Education	Tertiary Qualification	36.4
Business Sector	Manufacturing	30.7
	Services	26.4
Business Age	6–10 years	36.4
Ownership Structure	Sole Proprietorship	45.0
Annual Revenue	₦1–5 million	36.4

Source: Researcher's Compilation using Survey Data, 2025.

Descriptive Analysis of Data

Descriptive statistics reveal insights into business size, ownership structure, sectoral variations, and profitability, all of which influence tax compliance.

Variables	Key findings	Mean	Supporting Literature
Business Size	A strong positive relationship exists between business size and tax compliance. Larger businesses are more likely to comply due to better financial structures and resources.	4.5	Oladipupo & Obazee (2016)
Ownership Structure	Sole proprietorships face more challenges in tax compliance compared to partnerships and corporations. Businesses with multiple owners demonstrate better financial accountability.	4.1 (sole), 4.4 (multiple)	Mukhlis et al., 2015; Saad, 2014)
Sectorial Variations	The correlation between sectoral variations and tax compliance was weak, suggesting that industry type does not significantly influence compliance behaviour.	4.0	Atawodi & Ojeka, 2012; Nkwazema & Daniel, 2021)
Profitability	A strong positive correlation exists between profitability and tax compliance. More profitable businesses are better equipped to meet tax obligations.	4.1	Ocheni & Gemade (2015)

Source: Researcher's Compilation using Survey Data, 2025.

Business Size and Voluntary Tax Compliance

The findings demonstrate a robust positive relationship (Spearman's rank correlation coefficient $r = 0.821$) between business size and voluntary tax compliance. Larger MSMEs are more likely to comply due to higher visibility to tax authorities and better financial management, which is consistent with the literature (Laffer, 2019). Tax authorities should consider tailored compliance strategies that include tax

education and incentives for smaller businesses. The Deterrence Theory supports this finding as it posits that businesses comply primarily due to fear of audits, penalties, and legal consequences.

Relevance: The strong positive relationship **between business size** and compliance ($r = 0.821$) aligns with this theory, as larger firms are more visible and thus more likely to fear detection and sanctions.

Ownership Structure and Voluntary Tax Compliance

A moderate positive correlation ($r = 0.600$) was found between ownership structure and tax compliance. Businesses with more complex structures, such as partnerships and corporations, tend to comply more effectively due to better financial oversight (Alm & Martinez, 2020). This finding suggests the need for policies that promote transparency and simplify tax processes for all ownership types. This finding supports the Theory of Planned Behaviour (TPB) as it suggests that attitudes, perceived control, and social norms affect behaviour.

Relevance: The influence of ownership structure ($r = 0.600$) fits within this framework as well-structured businesses may have more control and a more positive attitude towards compliance.

Sectoral Variations and Voluntary Tax Compliance

The study revealed a weak correlation ($r = 0.218$) between sectoral variations and tax compliance, with no significant impact ($p = 0.074$). This indicates that industry type does not substantially affect compliance behaviour, suggesting that tax authorities should focus on firm-level determinants rather than sector-specific policies. The weak correlation between **sectoral** variations and compliance ($r = 0.218$, $p = 0.074$) is not strongly supported by Deterrence Theory, which would predict higher compliance in sectors with stricter oversight.

Profitability and Voluntary Tax Compliance

A strong positive relationship ($r = 0.629$) indicates that profitability significantly influences tax compliance ($p = 0.051$). More profitable businesses are better positioned to meet their tax obligations, corroborating findings from Kirchler et al. (2018). Tax authorities should consider flexible tax payment plans for less profitable MSMEs to enhance compliance rates.

The study concludes that MSME characteristics, including business size, ownership structure, and profitability, significantly influence voluntary tax compliance in Bayelsa State. Policymakers are encouraged to develop tailored tax policies and educational initiatives to foster compliance across various business categories, ultimately contributing to improved government revenue and economic stability in Nigeria. The Theory of Planned Behaviour (TPB) support this finding because TPB suggests that attitudes, perceived control, and social norms affect behaviour. **Relevance:** The influence of profitability ($r = 0.629$) fits within this framework as profitable businesses may have more control and a more positive attitude towards compliance.

5. Conclusion and Recommendations

The results of the study generally support the presumption that the size, structure, and profitability of MSME characteristics affect tax compliance. If one believed that certain industries are subject to increased enforcement, the non-significant role of sectoral variation might go against expectations. By emphasizing that compliance drivers are more firm-specific than sector-specific, this research, nevertheless, clarifies expectations. Based on the findings, the study proposes several policy recommendations:

- i. Differentiated Tax Policies: Implement tiered tax policies with lower rates or exemptions for micro and small enterprises to encourage compliance.
- ii. Business Registration Incentives: There should be Provision for financial support, tax reductions, and training to motivate MSMEs to formalize their operations.
- iii. Sector-Specific Strategies: Develop tailored tax awareness campaigns and compliance strategies that cater to different industries.
- iv. Profit-Based Tax Assessment: Employ flexible tax models that consider profitability to mitigate excessive burdens on low-profit MSMEs.
- v. Tax Education and Awareness: Conduct regular educational programs to inform MSMEs about their tax obligations and associated benefits.
- vi. Improved Tax Administration: Utilize technology to streamline tax processes, ensuring transparency and fostering trust.

The primary limitation of this study lies in its reliance on self-reported data, which may be subject to recall bias and exaggeration. Respondents' answers could have been influenced by personal opinions, potentially impacting the objectivity of findings. Additionally, the study did not consider other economic or social factors, such as government tax reforms or inflation, that may also affect voluntary tax compliance among MSMEs. Constraints related to time and financial resources further limited the scope and depth of analysis.

This research contributes to the existing literature on voluntary tax compliance among MSMEs, providing valuable insights for future studies on tax compliance behaviour in Nigeria. It is particularly significant as it explores the combined effects of business size, ownership structure, sectoral variations, and profitability within a single study, serving as a foundational reference for policymakers, researchers, and stakeholders interested in the tax behaviour of MSMEs.

Future research should compare voluntary tax compliance among MSMEs across different regions of Nigeria to identify location-based variations. Additionally, studies examining the effects of digital tax systems and e-filing platforms on MSMEs' tax compliance behaviour would provide further insights into how technology influences compliance practices.

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