

Personal Income Tax and Tax Compliance on Economic development in Nigeria

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Abstract: This study investigated the influence of personal income tax and tax compliance on economic development in Nigeria from 1999 to 2022. Using personal income tax as a ratio of gross domestic product, the study employs ordinary least squares (OLS) technique to analyze the data. Results indicate a significant positive effect of personal income tax on economic development, while tax compliance rate shows a significant negative impact. Recommendations include enhancing tax compliance by addressing loopholes that facilitate tax avoidance and under declaration of tax returns.

Keywords: Personal Income Tax, Tax Compliance, Economic Development, Revenue Generation.

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1. Introduction

Taxation is pivotal for government revenue generation, with tax reforms aimed at enhancing efficiency and compliance being crucial for economic development (Okeke & Saluadeen, 2021). However, challenges persist, particularly in Nigeria, where low tax compliance limits revenue generation and hampers economic growth. Consequently, there have been renewed efforts at improving revenue generation by improving the entire tax infrastructure notably through promoting effective legislation aimed at tax reforms as well as enhancing taxpayer education and the adoption of new technology. This is done as increased tax compliance will naturally translate to increased revenue accruing to Government coffers which can then be channeled into the provision of critical physical infrastructure for economic development (Imo & Okee, 2023).

In a bid to ensure that more revenue is generated, various governments in Nigeria had initiated several reforms aimed at enhancing efficient collect of tax administration thereby making taxation an important fiscal policy tool (Inyang et al. & Ekwe, 2022). By this, government strives to change the ways taxes are collected with a view to improving the country economic fortune to enable it offer more social benefits to the citizenry. This is against the backdrop of the fact that tax compliance in Nigeria has remained low making revenue raised to support crucial state functions grossly inadequate (Okee, & Isoso, 2022; Olaniyi, Ayoola, Wright, Aregbesola & Kolawole, 2023).

In Nigeria as in many economies, different types of tax exist among which include value added tax (VAT), customs and excise

duties, petroleum profit tax (PPT), as well as personal income tax (PIT). Personal Income tax is hereinafter represented by its acronym, PIT. The regulation of PIT in Nigeria is undertaken by both state and federal governments and is deducted at source through a system known as Pay As You Earn (PAYE) for salary earners. In this system, workers of both state and federal government pay their tax to the state where they reside except residents of FCT, members of Armed Forces and staff of the ministry of Foreign Affairs whose taxes are collected by the Federal government. The body tasked with assessing, collecting and accounting for tax and other revenues accruing to the Federal Government of Nigeria is the Federal Inland Revenue Service (FIRS). Conversely, taxes collected at state level are administered by the Boards of Internal Revenue of the various states. According to Okeke and Saluadeen (2021), the tax administration involves registration, evaluation, collection, refund, observation and enforcement of compliance, sanctioning, education and awareness of the taxpayer and other activities which can enhance tax efficiency. PIT is levied on individuals and is imposed on different sources of income such as pensions, labor, interest and dividends (Adejuwon, et al., 2022). However, effective administration of tax in Nigeria has been saddled with numerous challenges occasioned by frequent changes in the tax laws. The near absence of voluntary tax compliance remains the most intractable problem, however. For salary earners, the compliance rate is high as taxes are deducted from sources. It is a difficult situation with business owners in the informal sector and the result is several revenue shortfalls for the government thereby hindering implementations of policies and programmes.

The studies that have assessed the effect of PIT compliance on economic development are sparse in the literature and no such empirical review using the rate of tax compliance as a proxy has been carried out for Nigeria. This study's objective is thus to investigate the extent to which PIT and tax compliance rate have affected economic development in Nigeria. The rest of the paper is organised as follows. Section two conducts a brief review of the relevant literature. Section three concerns itself with the model presentation. In section four, the results of the study are presented and analyzed. The paper is concluded with policy remarks contained in section five.

2. Statement of the Problem

The challenge of raising adequate revenue from taxation particularly personal income tax remains a persistent problem facing the federal and state government in Nigeria. More often than not tax payers indulge in the avoidance and evasion of taxes thereby complicating the authority's ability to raise the maximum revenue from taxation and making the fiscal policy tool less effective. It has been argued that several of the tax policy reforms undertaken in Nigeria in recent time were carried out without much considerations for the economic challenges prevailing at the time which represents the de-facto reality of effective compliance. The problem of revenue shortfalls from taxation has become a serious issue as voluntary compliance level continued to witness a declining trend occasioned by increasing unemployment, job loss, rising inflation, all of which find expression in poverty. Another dimension to the problem is the failure of the tax authorities to meet the efficiency and equity requirements for which they were set up. Furthermore, tax policy is consistently subjected to reversals, modifications and alterations which do not necessarily produce outcomes that meet the expectations of tax payers. For instance, there have been evidence of the authority imposing double and multiple taxations thereby posing restrictions on trade and inter-state commerce which has made locally produced goods uncompetitive and consequently business closure. The inability of the authority in addressing the issue has, to a large extent, remained a major resource drain to the government while those who have managed to stay in business usually displayed confrontational and hostile attitudes towards tax agents.

3. Research Questions

Considering the problems enumerated above, the following research questions become pertinent.

- i). To what extent do change in PIT affect economic development in Nigeria?
- ii). What is the impact of the rate of tax compliance on economic development in Nigeria?

4. Objectives

The specific objectives of the study are:

- i). To assess the effect of personal income tax on the economic development of Nigeria.
- ii). To examine the impact of tax compliance rate on Nigerian economic development.

5. Research Hypotheses

The study tested for two null hypotheses, namely,

H₀₁: Personal income tax does not have a positive and significant effect on economic development in Nigeria.

H₀₂: There is no positive significant relationship between tax compliance rate and economic development in Nigeria.

6. Review of Related Literature

6.1 Conceptual Issues

Personal income tax is generally levied on income from individuals employed in either the formal or informal sectors of the economy. Those currently employed pay as they earn otherwise known as PAYE. Self-employed individuals and those who work in the informal sector are subjected to spot assessments based on the income they generate from their entrepreneurial ventures. This form of assessment is called direct assessment. Okee and Isoso (2022) view voluntary compliance as the individuals' willingness to personally prepare and file tax returns without any government enforcement. This means that the individual are not subject to any pressure from tax authority but act out of reverence and mutual respect for the laws (Gangl et al., 2015). It is also indicative of a state of affairs in which the taxpayer is respectful of the institutions responsible for tax legislation and sees the authorities as being honest brokers who require revenue from the taxpayers' to provide important societal amenities and functions. However, sometimes, individuals or entities may seek to exploit loopholes in legislation with the goal of reducing their tax liability. They do this by being creative and actively conceiving of ways of legally reducing their obligations to the authorities. Voluntary compliance is only possible when taxpayers and the tax authority's share a certain level of trust and the former is willing to pay without being coerced (Okee & Isoso, 2022).

In the view of Olaniyi, et al., (2023), "tax compliance refers to the willingness of taxpayers to fulfil their tax obligations by rendering timely and accurate tax returns in accordance with tax laws and regulations". Tax compliance has been defined in various ways in the literature. However, Brown and Mazur (2003) identified tax compliance namely filing, reporting and payment compliance. Filing compliance measures and records the proportion of returns submitted by taxpayers while reporting compliance assesses the accuracy of the reported financial information. Payment compliance calculates the share of financial gain to be taxed. Badara (2012) submits that it the responsibility of the to accurately report the income and expenses generated by any work or business related activity as well as to promptly assess and report the relevant returns in compliance with extant tax laws.

Tax compliance refers to the willingness and readiness of taxpayers to report their tax liabilities to the relevant government agencies in accordance with tax laws, regulations and judicial decisions. This entails accurately and fully declaring income, timely filing, and payment of taxes as required by tax regulations. According to the OECD (2008), personal income tax (PIT) compliance can be measured as a ratio of the nation's gross domestic product (GDP), a measurement supported by recent empirical studies such as Okeke and Salaudeen (2021). Compliance is conceptualized by Abdulsalam, Almustapha and E;-Maude (2014) as a rational economic decision influenced by factors such as the probability of being audited, the severity of penalties, and the ease and cost of compliance. Strengthening enforcement and facilitating compliance during tax reforms are

essential determinants identified as being intrinsic to tax compliance and increased revenue generation.

7. Theoretical Issues

Various theories have emerged in the literature to elucidate the influence of taxation on economic development. One such theory is the traditional notion of taxation, rooted in the classical economic school propounded by Robert Barro in 1967. This theory, as summarized by Slemrod (2003) and cited in Inyang et al. (2022), posits that lower government expenditure and tax rates correlate with increased economic growth. Essentially, this theory suggests that high marginal tax rates may incentivize taxpayers to avoid or divert taxes, thereby dampening incentives to work and earn more income. Conversely, lowering marginal tax rates can stimulate economic growth by encouraging greater effort to earn income. While economic theory predicts a negative relationship between marginal tax rates and economic growth, various complicating factors have been proposed, such as differences in short-term responses to changes in marginal rates, which may reduce labor supply, capital, and impede economic growth (Adudu Ojonye, 2015).

Additionally, the behavioral model of tax compliance, rooted in sociological and psychological factors, posits that taxpayers' compliance behavior is influenced by their perceptions of tax managers and enabling laws. Taxpayer trust in tax administration is defined as "the general opinion of individuals and social groups that the tax authorities are benevolent and work beneficially for the common good," while the power of tax authorities refers to "taxpayers' perception of the potential of tax officers to detect illegal tax evasion and apply appropriate punishment" (Kirchler, et al., 2008). Trust and power can both contribute to increased tax compliance, albeit through different mechanisms. Trust tends to foster voluntary compliance, while enforced compliance relies on the authority and capabilities of tax authorities to ensure adherence to tax laws (Abdulsalam, et al., 2014).

8. Empirical Issues

Jones and Ekwueme (2016) employed the OLS methodology on data that spanned the period 1985-2011 to inquire on tax reforms impact on economic growth in Nigeria. The proxies for tax reforms employed by the study include PIT, petroleum profit tax (PPT), value added tax (VAT), custom and excise duties, company income tax (CIT) and education tax. Accordingly, the study could failed to isolate any statistically significant impact of PIT on economic growth. However it did identify significant positive influences on growth from CIT and PPT respectively. On the basis of the findings the study harped on the need for government to engage chartered tax practitioners with a view to ensuring robust tax that will yield more revenue to the coffer of government.

Meanwhile, Nwaorgu, et al. (2016) assessed to what extent reforms in tax policy have impacted Nigerian economic growth over the period of 1971-2014. The study which utilized OLS methodology on tax reforms disaggregated into PIT, VAT, CIT and PPT found evidence of significant positive effect of PIT on growth contrary to significant negative influence exerted by VAT during the period of review. It was recommended by the study that government should provide all necessary tools to strengthen the relevant tax authorities and generate more revenue for the government.

Olurankinse and Oladeji (2018) documented a study on the effect of e-taxation payment systems and self-assessment on government revenue in Nigeria. A sample of 30 tax executives were drawn from 30 listed firms in Rivers State using Pearson's moment correlation and regression technique. Findings indicated strong evidence of positive significant impact of self-assessment and e-taxation payment systems on government revenue generation in Nigeria.

Okoye, et al. (2018) appraised to what extent benign governance affects PIT compliance in Nigeria using Delta and Edo States as a case study. A sample of 400 questionnaires was distributed for the study. Using OLS the study found evidence of significant positive effects of good governance on PIT compliance in Nigeria.

Okeke and Saluadeen (2021) used 2007 company income tax reform to explore the influence of tax reforms on compliance behavior of firms in Nigeria using data covering pre and post-tax periods between 1997-2006 and 2008-2017, respectively. Annual CIT and gross domestic product were used as explanatory variables. Utilizing the Wilcoxon Rank Sum Test, the study found evidence of more tax compliance by companies during the post-tax than in the pre-tax era and suggested increase in tax incentives to companies in order to induce more compliance.

Adejuwon, et al., (2022) investigated the factors affecting voluntary tax compliance in Nigeria. The study utilized a combination qualitative and quantitative analysis to examine a sample of 140 income taxpayers in Lagos State, Nigeria. Using a simple linear regression technique, the study found that tax system, trust in government, fairness and perception of government spending are key determining factors influencing voluntary tax compliance in Nigeria.

Sayi and Lambe (2922) employed OLS methodology in conjunction with questionnaire survey method to examine the impact of voluntary tax compliance on government tax revenue in Nigeria. The study found evidence of the effect of voluntary tax compliance on government tax revenue in Nigeria.

Inyang, et al., (2022) employed OLS technique on data period of 2004-2016 to scrutinize the impact of PIT on revenue from taxes in Nigeria. The study found evidence of a significant positive impact of personal income tax on total revenue in Nigeria in the period under review.

Okee and Isoso (2022) appraised the response of petroleum profit tax to voluntary tax compliance in Nigeria for the periods, 2007-2019. A survey research through questionnaires in conjunction with data on petroleum profit tax were utilized for the study. Using OLS technique, the study observed evidence of statistically significant positive effect of voluntary tax compliance on petroleum profit tax revenue in Nigeria. The study averred that factors which stimulate the willingness of the citizens to pay tax must be strengthened.

Ashibogwu and Bankole (2018) did a comparative study on Nigeria and United Kingdom tax system. The paper reveals that Nigeria is ranked very low in the ease of doing business and also payment of tax. The study suggested that Nigeria should adopt current technology that will allow for convenience in tax payment process and improve in the tax policy that is less hostile to business and entrepreneurs.

Olaniyi, et al., (2023) examined the determinants of PIT compliance identified as tax penalty, tax education, tax administrative efficiency and tax support service. The study used 365 questionnaire and Partial Least Square Structural Equation Modelling (PLS-SEM) and found that tax penalty, tax education and tax administrative efficiency had positive significant effect on personal income tax compliance in Nigeria. However, tax support service was found to be insignificant in their impact on PIT compliance.

In a very recent study, Imo and Okee (2023) examined how voluntary tax compliance affects petroleum tax revenue in Nigeria. The study which employed both questionnaires and historical data covered the period, 2007-2019. Accordingly, the study found that voluntary tax compliance exerted a significant positive influence on petroleum tax revenue in Nigeria. The study recommended regular sensitization programmes that will enlighten taxpayers on the need for voluntary tax compliance thereby boosting revenue for the government.

9. Methodology

Among the research design for the study include the use of ex post factor design, secondary data and econometric analysis. The population of the study consist variables on economic development and ta structures. A judgmental sample technique is used to select three variables covering the period of 1999-2022 for the study. The study used three variables namely human development index, personal income tax (PIT) and gross domestic product (GDP) sourced from United Nations Development Programme (UNDP), Central Bank of Nigeria (CBN) and Federal Inland Revenue Service (FIRS) respectively. In testing the hypothesis, the p-value is compared to the critical value of the test which in this study is

5% or 0.05. For the null hypothesis to be rejected, the p-value must be less than 0.05 and vice versa.

9.1 Model Specification

The model specifies a simole linear regression model similar to Nwaorgu, et al., (2016) and Okoye, et al., (2018) that examines the effect of personal income tax and tax compliance on economic growth for data period of 1999-2022 as follows;

$$HDI_t = f(PIT, TCR) \dots \dots \dots (3.1)$$

In log stochastic term, equation 3.1 can be estimated as:

$$HDI_t = \beta_0 + \beta_1 \ln PIT_{t-1} + \beta_2 TCR_{t-1} + \varepsilon_t \dots \dots \dots (3.2)$$

Where: HDI = human development index, PIT = personal income tax, TCR = tax compliance rate obtained by dividing gross domestic product by personal income tax. β_0 , β_1 – β_2 refers to constants and parameters to be estimated respectively. Finally, ε is error term while t is time trend. It is expected that increase in PIT and TCR should lead to increase in HDI, a proxy for economic development.

10. Presentation of Results

Table 1 contains the results of the study in which HDI is proxy for economic development made as a function of personal income tax (PIT) and tax compliance rate TCR). The goodness of fit is relatively robust in that the independent variables account for 89% variation in economic development. Likewise, the DW statistic of 1.99 revealed that there is no serial correlation in the study while the F-statistic suggests that the model is statistically significant.

Table 1: Estimation Results

Dependent Variable: HDI

Method: Least Square

Variable	Coefficient	Std error	t-statistic	Prob
Constant	5.45	5.33	1.01	0.32
LPIT	3.69	0.82	4.53	0.00
TCR	-4.99	1.22	-4.10	0.00
R ²	0.89			
DW	1.99			
F-Stat	4.33			

Source: Extracted from Eview 12

Ho₁: Personal income tax does not have positive significant effect on economic development in Nigeria.

Personal income tax has a positive coefficient of 3.69 and a p-value of $0.00 < 0.05$. This means that there is a significant positive relationship between personal income tax and economic development. Also, it suggests that a one unit increase in PIT led to increase in economic development by 3.69% in the period under consideration. The study gives credence to the findings earlier reached by Jones and Ekwueme (2016) and Nwaorgu, et al., (2016).

Ho₂: There is no positive significant relationship between tax compliance rate and economic development in Nigeria.

This variable has a coefficient of -4.99 with a p-value of $0.00 < 0.05$ suggesting a negative statistical significant relationship between tax compliance rate and economic development during the period under consideration. It further implies that a 1% increase in tax compliance rate decreases economic development by 4.99%.

11. Conclusion and Recommendations

The study assessed the effect of personal income tax and tax compliance on human development in Nigeria using secondary

data that covered the period of 1999-2022. It has been observed in the extant literature that inability of government to raise enough revenue through taxation has been blamed on low compliance by taxpayers. Apart from personal income tax many prior studies in the extant literature used primary data to measure compliance. In the current study this measurement was done by making personal income tax a fraction of gross domestic product. The study therefore uses econometric technique for the analysis. In the first place, the findings of this study revealed positive significant effect of personal income tax on economic development. This finding is not surprising in that personal income tax constitutes a large chunk of government revenue. More importantly, salary earners from both private and public sectors have a very high compliance occasioned by a system of PAYE. On the other hand, the negative finding on the relationship between tax compliance and economic development is worrisome more especially the presence of large informal sector whose source of income is very difficult to track by the tax authority. In addition, many private companies engaged in tax avoidance and tax evasion which has become a serious challenge for the government. On the basis of the findings, the study recommends that all loopholes that encouraging tax avoidance should be addressed obviating the penchant for individuals and companies to under declare their income returns. Also, government should increase the tempo of sensitization aimed at making taxpayers abreast to the required laws on voluntary tax compliance.

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