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Tax Revenue and Health Infrastructure Financing in Nigeria

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Abstract

The Nigerian government has been increasingly utilizing various sources of funding for infrastructure development since the return of civilian rule. These sources include Multilateral Development Banks (MDBs), Bilateral Creditors, Public-Private Partnerships (PPPs), and the Tax for Infrastructures Scheme (Road Infrastructure Development and Refurbishment Investment Tax Credit Scheme). However, the country's infrastructure stock is estimated to be between 20% and 25%, which is significantly below the recommended international benchmark of 70% of gross domestic product. In light of this, the study examined the impact of tax revenue on health infrastructure financing. The study adopted an ex-post facto research design. The study used a secondary data and it is a time series data obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin, Federal Inland Revenue Service (FIRS), and Office of the Accountant General of the Federation (OAGF) using the dataset from 1985 to 2020. Validity and reliability were premised on the statutory of the Nigeria data. Descriptive and inferential method of data analysis were used to analyse the data. The inferential statistics used comprised of unit root test, co-integration test, optimal lag selection, autoregressive distribution lag model, and bound test which are used to test the short run and the long run effect of tax revenue and infrastructure financing. The independent variable, tax revenue is measured using company income tax, value-added tax, petroleum profit tax, capital gain tax, and tertiary education tax, while the dependent variable is measured using health infrastructure financing. The findings showed that tax revenue has a significant effect on health infrastructure financing (Adj. R^2 = 0.734; $F_{statistic}$= 5.140, P-value = 0.04). The study, thereby, concluded that tax revenue has significant effect on health infrastructure financing in Nigeria. The study recommended that the government should focus on improving tax collection mechanisms. This could involve strengthening tax administration, enhancing tax compliance, and addressing tax evasion and avoidance. Also, to ensure that tax revenue effectively contributes to health infrastructure financing, policymakers should consider earmarking a specific portion of tax revenue specifically for healthcare projects. This would ensure a dedicated and sustained funding stream for the development and maintenance of healthcare facilities and services.

Keywords: *Infrastructure financing, Health infrastructure, Tax revenue, Company income tax, Petroleum profit tax, Value added tax, Education tax, Capital gains tax*

INTRODUCTION

Infrastructure financing is crucial for developing nations, as it not only drives economic growth but also ensures that growth is inclusive, reducing poverty and income inequality. The significance of infrastructure financing cannot be underestimated, as it plays a key role in promoting economic development and prosperity. Investing in infrastructure leads to increased productivity, trade, and connectivity, as well as fostering economic inclusion (Ajiteru, Adaranijo, & Bakare, 2018; Ayeni & Afolabi, 2020).

According to Isabelle, Thomas, and Eric (2016), investing in public infrastructure has a short-term positive impact on the U.S. economy. This investment goes beyond simply improving the quality of public infrastructure. Additionally,

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these investments generate significant economic benefits for other sectors of the U.S. economy and lead to a substantial increase in tax revenue for the government. Pravakar, Dash, and Nataraj (2010) highlighted the importance of adequate funding for public infrastructure in China. The Chinese government is actively seeking innovative funding mechanisms that do not contribute to rising deficits and can potentially stimulate the private sector. Public-private partnerships, as well as individual and corporate contributions to infrastructure financing, are potential methods through which public spending on infrastructure can be supplemented, going beyond tax revenue.

Chan (2014) argued that the government plays a crucial role in providing infrastructure to address market failures, such as insufficient provision of services, externalities, and controlling market power in natural monopolies. This broader context involves decisions regarding infrastructure ownership, delivery methods, public procurement, financing options, and regulatory frameworks for service delivery. In the context of Malaysia, Chung (2019) highlighted the need for tax reforms to expand the overall tax base and diversify revenue sources to finance inclusive growth through infrastructure projects. The author emphasized the importance of the Malaysian government focusing on strengthening tax collection administration to prevent revenue leakage, reducing tax exemptions, and exploring indirect taxes to facilitate infrastructure development. Shadid, Mahmood, and Ayesha (2021) underscored that low tax revenue limits the government's ability to provide social welfare programs, increases the debt-to-GDP ratio, and leads to budgetary borrowing, ultimately resulting in crowding out.

According to Owolabi, Ogunleye, and Inimgba (2019), in relation to the Nigerian economy, it is important for the government to generate tax revenue in order to fund infrastructure such as power supply, efficient transportation systems with good roads, healthcare facilities, schools, security measures, and defense against internal and external threats. The provision of these public services has a positive impact on the development of the country, leading to an improvement in the standard of living and a well-functioning economic system. Consequently, the amount of tax revenue generated is expected to affect infrastructure development, while the level of infrastructure provided is expected to influence tax revenue through compliance or the willingness to pay taxes. This means that the government needs to motivate and ensure compliance from taxpayers by designing effective tax plans and administration, as well as fostering willingness and patriotism among taxpayers (Hammayo, Shittu, & Abdullahi, 2020). However, the level of compliance and, therefore, the amount of tax revenue generated is heavily influenced by the level of tax literacy and whether taxpayers perceive that the government's provision of infrastructure justifies the taxes they pay.

In Nigeria, taxation is one of the means of generating revenue by the government, in order to meet up with expenditures and needs of the citizens. Taxation is a stabilization weapon used to stabilize a distressed economy. Tax revenue constitutes a major component of national income in a modern economy (Oladipupo & Ibadin, 2016). In 2020, Nigeria generated a total of N1.41 trillion as revenue from Companies Income Tax (CIT), of this figure, 56.09% came from sectoral collection, 16.89% was e-payments, and 27.02% from foreign sources. However, the country recorded a 13.35% decline in total company income tax generated in 2020 compared to 2019. While Company Income Tax (CIT) had been the highest source of tax revenue for the government, it was exceeded by Value Added Tax (VAT) in year 2020. Yet, states and federal debt continues to increase over the years, whereas the country continues to record a tepid growth in the total tax revenue (NBS, 2020).

A huge infrastructure deficit has limited the effort to achieve inclusive growth, sustainable development, and poverty reduction in Nigeria. In the last a decade, Nigeria's has an estimated infrastructure stock of 20% – 25% while the infrastructure stock remains significantly lower than the recommended international benchmark of 70% of Gross domestic product (GDP). According to the National Integrated Infrastructure Master Plan (NIMP, 2014), an approximated amount of US$ 3 trillion and US$ 100 billion was invested yearly which is required to bridge Nigeria's infrastructure gap for the next three decades. The plan reviewed that Nigeria will spend an annual average of about US$ 33 billion on infrastructure investments between 2014 to 2018, indicating that Nigeria will need to spend double of the amount budgeted on Infrastructure for her to make a significant progress in infrastructure development.

Also, 29% of hospitals and clinics in the Nigeria do not have access to clean water, the same percentage do not have safe toilets and 55.6% of total population do not have access to electricity. Massive infrastructural decline and inadequate facilities have not only impeded access but also affected the delivery of quality public service (Ayeni & Afolabi, 2020). The current state of infrastructure in Nigeria poses a significant problem. Orji (2020) argued that improving the disintegrating infrastructure in Nigeria can be achieved through taxation by increasing tax revenue and blocking all loopholes that leads to decline in infrastructure financing. The relationship between tax revenue and infrastructural financing has generated diverse opinions in the empirical literature. Ihenyen and Miesiegha, (2014); Egabdju and Oriavwote, (2016); Yaya, (2013); Onakoya and Afintinni, (2016), among others. Majority of earlier studies considered the relationship between tax revenue and economic growth.

Literature Review

Tax revenue refers to the money governments earn through taxation, which is an essential and dependable source of government income. It is characterized by its certainty and flexibility. According to Ogbonna and Appah (2012), the economic and social development of any country heavily relies on the amount of tax revenue generated, as it funds infrastructure projects. In Nigeria, tax revenue can be categorized into two types: oil revenue, which includes income from royalties, Petroleum Profit Tax, and gas tax, and

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non-oil revenue, which encompasses taxes collected from sectors other than petroleum profit tax, such as trade, loans, and direct and indirect taxes.

The United Nations Expert Group (2014) emphasizes that tax revenue significantly contributes to development and advocates for the streamlining of a nation's tax system to ensure fair distribution of the tax burden and maximize revenue. However, many developing countries face challenges in mobilizing tax revenue due to resistance in the form of evasion, avoidance, and corrupt practices, as highlighted by Worlu and Emeka (2015). These activities are detrimental to the economy and are often cited as reasons for the country's underdevelopment. Governments collect taxes to finance essential public services, including infrastructure, such as roads, power supply, education, healthcare, communication systems, employment opportunities, and other necessary services that do not generate direct revenue.

Desai, Foley, and Hines (2016) emphasized that governments have at their disposal many tax instruments (company income tax, value-added tax, petroleum tax, capital gains tax) that can be used to finance their activities. These tax alternatives include personal and corporate income taxes, sales taxes, value-added taxes, capital gain taxes, and numerous others. It is not uncommon for a country to impose all of these taxes simultaneously. In choosing what tax instruments to use and what rates to impose, governments are typically influenced by their expectations of the effects of taxation on investment and economic activity. Oladipupo and Ibadin (2016) explained that tax revenue constitutes a major component of national income in a modern economy. It is the dominant source of government-recurrent revenue in most developed countries. The world's largest economy which is the United States of America is tax revenue driven. The impact of taxes may not be as significant in developing countries, most of which are fueled by commodity export earnings. The Nigerian economy is heavily dependent in crude oil export receipts. The author noted that the immense potentials of taxes as a major engine room for fueling the economy have not been exploited because of government dependence on oil revenue.

Health Infrastructure Financing

Health infrastructure financing is a crucial factor of health care delivery quality, efficiency, and equity (WHO, 2009) Oversight is crucial to the strategic development, regulation, and accountability of health services, in addition to their day-to-day operations and performance. It influences health systems' ability to design and implement policies, detect and repair service flaws, advocate for health care in national development, and work with stakeholders. Governance entities should strive for universal health coverage, which necessitates stable health-financing systems (OECD, 2015; WHO, 2014). Finance systems must enable for central pooling of money for financial risk protection and equitable allocation of resources to areas of highest need, in addition to generating adequate revenues to support the health system.

Due to disparities in infrastructure and economy, there is expected to be a significant variation in the governance and financing of health systems globally. In countries with low incomes, government contributions to healthcare are unlikely to be enough, leading to the need for additional support from NGOs, community organizations, and commercial health insurance. Despite these efforts, resources may be insufficient to provide adequate financial protection, and as a result, patients may bear the burden of healthcare costs. Furthermore, the lack of funding puts the adequacy of healthcare infrastructure at risk, resulting in the provision of poor-quality care. This investigation has revealed several issues related to healthcare oversight, funding, and infrastructure. Despite the widespread recognition of the importance of leadership in improving health outcomes, governance remains a significant challenge (WHO, 2015).

Theoretical Framework

Considering tax revenue and infrastructure financing in Nigeria, this study focused on the sacrifice theory and public financial management theory. This implied that the underpinning theory for the dependent variable (infrastructural financing) is the public financial management theory while sacrifice theory is associated with tax revenue (independent variables). These theories are of the opinion that though tax is a compulsory levy, yet it requires a sacrificial spirit for companies and other tax payers to continue to comply with payment of taxes, on the other hand, the public financial management theory emphasizes the importance of public fund management in enhancing public service delivery in the economy. Hence, the theory shows its relevance to the research study using both tax revenue and infrastructural financing of Nigeria.

Methodology

The research study employed an ex-post facto research design, utilizing secondary data in the form of a time series dataset obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin, Federal Inland Revenue Service (FIRS), and Office of the Accountant General of the Federation (OAGF). The dataset spanned from 1985 to 2020. The validity and reliability of the study were based on the official nature of the Nigerian data. The data was analyzed using descriptive and inferential methods. The inferential statistical techniques used included unit root tests, co-integration tests, optimal lag selection, autoregressive distribution lag models, and bound tests. These techniques were employed to examine the short-term and long-term effects of tax revenue and infrastructure financing.

Data Analysis and Discussion of Findings

This section is divided into three sections including data analysis (result of the dataset), interpretation, and discussion of findings displayed in the sub-section below. The section used a secondary data obtained from the Federal Inland Revenue Services, Central Bank of Nigeria, and Accountant General of the Federation between 1985 to 2020. The dataset comprising of the dependent variable (health infrastructure financing) and the independent variable (tax revenue). Descriptive and inferential method of data analysis were used as a method of data analysis.

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Lag Selection Criteria

Prior to the unit root test conducted in section 4.2.2 above, a need to determine the lag length selection criterion is essential for the study. The result found the optimum lag length of the variables because the study assume that the time series present year data are some extents influenced by their previous data. Hence, the optimum lag for each hypothesis is recorded below. The lag length of each model is displayed in the section below.

Table 4.1: Lag length of tax revenue and health infrastructure financing

VAR Lag Order Selection Criteria

Endogenous variables: HIF

Exogenous variables: C CIT VAT PPT CGT TET

Date: 05/07/23 Time: 18:18

Sample: 1985 2020

Included observations: 17

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-92.30184	NA	6366.221	11.56492	11.85900	11.59415
1	-88.91319	3.986643*	4904.786*	11.28390*	11.62699*	11.31801*
2	-88.44119	0.499764	5370.197	11.34602	11.73812	11.38500

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Interpretation

The selection of optimal lag for model 1 is revealed in Table 4.5 above. The result of the selection criteria for model 1 is at lag 1 showing the log-likelihood for model 1 at various lag length with various degree of freedom, information criterion (which include FPE, AIC, SC, and HQ), and probability value (p-value). The p-value of all the lags for lag 1, indicating the model 1 is significant at p-value < 0.05 (5% significance level). Based on this, the decision states that lag 1 considering AIC (Akaike information criterion) shows the optimum lag for model 1 at p-value < 0.05 (5% significance level) for model 1 at lag 1. In real terms, it implies that it would take a year (1) before the impact of the constructs of tax revenue could be felt on the dependent variable (health infrastructural financing), although this is only applicable when estimating the short-run model as every shocks in the short run would have converged in the long run.

Therefore, there is need to proceed with autoregressive distribution lag model. Based on the result in Table 4.5, the lag length with minimizes information criterion is lag 1 and thus the optimal lag length. The study proceeded to test for the ARDL bound test to establish the nature of relationship whether there is long-run relationship or short-run relationship between tax revenue and infrastructural development on health. Hence, AIC is the best fit for the model at lag 0.

Research Hypothesis: There is no significant effect of tax revenue on financing of health infrastructure in Nigeria.

Table 4.1: Tax Revenue and Health Infrastructure Financing
Result of the ARDL (Regression and Post-Estimation Tests)

VARIABLES	Coefficient	Std. Error	t-Statistic	Prob.
CIT	0.200	0.080	2.485	0.056*
VAT	-0.039	0.083	-0.468	0.660
PPT	0.163	0.023	7.153	0.001*
CGT	0.527	0.380	1.387	0.224
TET	-1.805	0.323	-5.596	0.003*
C	-123.851	23.233	-5.331	0.003
Adjusted R-squared0.734				
F-statistic5.140; Prob(F-statistic) 0.04*				
Durbin-Watson stat 2.241				

Dependent Variable: HIF **Sig. level: *10%**

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Where CIT indicates company income tax, VAT – value-added tax, PPT – petroleum profit tax, CGT – capital gain tax, and TET – tertiary education tax

Source: Researcher's Computation, (2023)

$HIF_t = -123.851 + 0.2CIT_t - 0.039VAT_t + 0.163PPT_t + 0.527CGT_t - 1.805TET_t$

Interpretation

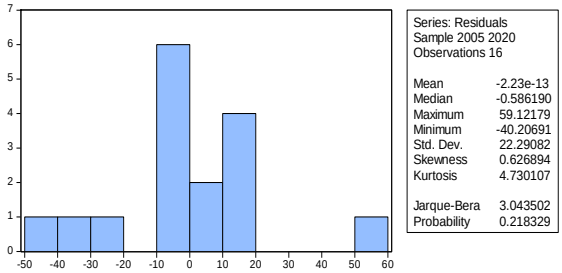
Prior to the optimal lag length selection presented in the sub-section below, optimal lag was selected at lag 0 with AIC being the best fit of the model. After conducting the optimal lag length selection, the bound test showed that there is cointegration between the proxies of tax revenue and health infrastructure financing. Hence, a long-run effect was used from the result of the error correction model analysis. The diagnostic result of the model 1 showed that an adjusted r square of 0.734, indicating that 73.4% of the independent variable (tax revenue: CIT, VAT, PPT, CGT, and TET) explained in the dependent variable (health infrastructure financing) in the long run effect while the remaining 26.6% are factors not considered in the model or factors loss to an error term.

Model 1 showed that three of all proxies of tax revenue were found significant at p-value < 0.1 (10% significance level). The variables which are significant at 10% significance level include CIT (coeff = 0.200; p-value = 0.056); PPT (coeff = 0.163; p-value = 0.001); and TET (coeff = -1.805; p-value = 0.003) while the other two variables are insignificant at either 10%. The insignificant variables include VAT (coeff = -0.039; p-value = 0.2840) and CGT (coeff = 0.527; p-value = 0.224). Of all these variables of tax revenue, CIT and CGT showed significant positive effect on health infrastructure financing in Nigeria, likewise, PPT has positive but insignificant effect on HIF. Contrarily, VAT and TET showed negative effect on health infrastructure financing in Nigeria, however, only TET is significant. The results of the regression analysis proved that a billion-naira increase in CIT would yield 0.2billion naira increase in health infrastructural financing; a billion-naira increase in PPT would result to would yield 0.163billion naira increase in health infrastructural financing; while increase in tax revenue generated through CGT by a billion naira would lead to 0.527 billion-naira increase in health infrastructural financing. In contrast, as VAT increases by a billion naira, HIF would decline by 0.037 billion naira while a billion-naira increase in TET would cause a reduction of 1.805 billion naira in HIF.

Decision:

At the level of 0.1 (10% significance level), the F statistic is 5.14 with the p-value of 0.04 revealed that the null hypothesis is rejected. Hence, the study concluded that tax revenue significantly affected the health infrastructure financing in Nigeria at p-value < 0.10 (10% significance level).

Normality Test for HIF



The probability of the Jacque-Bera test was used to evaluate the normality of the Model One with its null hypotheses which states that the Model is normal. The insignificance of the p-value of 0.218 which is greater than the chosen significant level of 10% implies that the model is normal and suitable to test the relationship among the series in the model.

Table 4.2: The Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test for HIF:

F-statistic	0.058641	Prob. F(2,3)	0.9441
Obs*R-squared	0.601967	Prob. Chi-Square(2)	0.7401

Source: Researcher's Computation (2023)

The Breusch-Godfrey Serial Correlation LM Test was carried out to determine the existence of associations among the coefficients of the model and its residuals. Unhealthy association result to the error terms being smaller than expected and the co-efficient of determination being higher than normal. The statistics derived (F-statistic = 0.059, ρ-value = 0.944) supports the null hypothesis which states that there is no serial correlation in the residuals up to the specified lag order at 10 percent significant level.

Table 4.3: The Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.273741	Prob. F(10,5)	0.9614
Obs*R-squared	5.660621	Prob. Chi-Square(10)	0.8429
Scaled explained SS	1.030992	Prob. Chi-Square(10)	0.9998

Source: Researcher's Computation (2023)

Breusch-Pagan/Cook-Weisberg Test was conducted for Heteroskedasticity; that is testing for the consistency of the variations in the residuals of the model over the period "t". The result with the ρ-value of 0.961 being greater than 10 percent chosen level of significance is an reflection of consistencies in the differences of the residuals of the model across the period "t" that is the residuals of the model are stable over time and it is appropriate for estimating the model. The homoscedasticity of the model is confirmed based on the value of the Durbin-Watson statistics of 2.241 which is within the threshold of 2.

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Stability Test (CUSUM Residual Test)

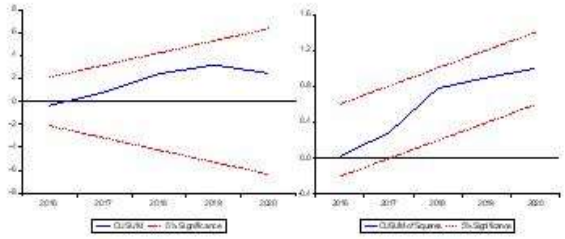

Figure 4.1: CUSUM Test of tax revenue and health infrastructure financing

Source: Researcher's Computation, 2023.

The CUSUM test for stability is meant to determine the appropriateness and the stability of the model. In addition, the CUSUM test is used to show whether the model is stable and is suitable for making long-run decision. "The figure above plotted within the five percent critical bound (with the experimental line lying in-between the upper bound and the lower bound, that is, not crossing the upper bound and the lower bound) implies that the parameters of the model do not suffer from any structural instability over the period of study. That is, all the coefficients in the error correction model are stable.

Table 4.4 The Linearity Test

Ramsey RESET Test
Equation: UNTITLED
Specification: HIF HIF(-1) CIT CIT(-1) VAT PPT PPT(-1) CGT CGT(-1) TET
TET(-1) C
Omitted Variables: Powers of fitted values from 2 to 4

	Value	df	Probability
F-statistic	3.221773	(3, 2)	0.2458
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	6175.367	3	2058.456
Restricted SSR	7453.208	5	1490.642
Unrestricted SSR	1277.840	2	638.9201

The linearity assumption of ARDL test was estimated using Ramsey Reset Test, the ρ-value of the F-stat of 0.246 being greater than 10 percent chosen level of significance implies that the model is correctly specified since the p-value is more than 0.1 then the null cannot be rejected which implies that there exist a linear relationship between the dependent variable and independent variable.

Discussion of Findings

Model 1 has revealed a mixed result if the p-value is considered at 10%. This is as a result of the p-value showing the value < 0.10 (10% significance level). Of all the five proxies of tax revenue considered in the analysis, that is Table 4.11, three variables were found to be significant at 10% level of significance while the other two are insignificant at p-value < 10%. The variables significant include CIT, PPT, and TET.

In general, the p-value of the F statistic showed the value of 0.04 which is less than 0.05, and the decision is to reject the null hypothesis if the p-value < 0.05 (5% significance level), if otherwise do not reject the null hypothesis. The result of the model revealed that tax revenue significantly affected health infrastructure financing in Nigeria. Past studies have also confirmed the findings. An instance is the study of Chan et al., (2015) which discovered that government significantly played a predominant role in providing health infrastructural facilities. Also, the study of Ibanichuka et al., (2016) confirmed the finding and concluded that the revenues collected by the federal government through company income tax, value-added tax, custom, and excise duties helps to improve health infrastructure and human development index, even though custom and excise duties insignificant affect the health infrastructure financing. Other studies which corroborate with these findings is the study of Ofoegbu et. al., (2016) which established that tax revenue have a positive effect on gross domestic product. The research of Naoyuki and Umid (2017) was also in-line with this finding, where they discovered that tax revenue has a positive effect on infrastructural development of Japan.

The studies of Chen (2017) and Chen (2018) also agrees with the findings of this research. Chen (2017) found that state highway maintenance spending plays an important role in improving state road and bridge quality while Chen (2018) in assessing and explaining the relative efficiency in producing public highway infrastructure outcomes among American states observed that fiscal capacity and political and fiscal institutions all have an impact on state transportation infrastructure systems' efficiency performance.

Findings from the study of Weiping (2010) also agrees with the findings of this study in the sense that the strong association between tax revenue, infrastructure investment (health infrastructure, power, and energy infrastructure), and economic performance in China is equally what this study, as well as Ibanichuka, Akani, and Ikebujo (2016) and Olayungbo and Olayemi (2018), have revealed for Nigeria, which equally aligns with the findings of Chan, Forwood, Roper, and Sayers (2015) that revealed that government has played a predominant role in providing health infrastructural facilities.

The article of Adeusi et. al., (2020) discovered that CED and VAT positively affect economic growth as well as CIT which has a significant negative effect on economic growth. On the other hand, the research of Taiwo (2017) was not in line with this finding which stated that tax haven, tax evasion, and tax avoidance greatly hinder tax revenue generation in Nigeria with tax haven contributing greatest hindrance. Instead, the research between tax revenue and health infrastructure financing significantly affect both positively and negatively. This implied that tax revenues may likely be the source of financing and development of HIF and thereby impact on increasing tax revenues for general state budget and it would also help improve funding with strong links to the HIF.

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Conclusion and Recommendation

The study developed a research hypothesis, research question, and research hypothesis based on the research topic, tax revenue, and health infrastructure financing. The study considered tax revenue as an explanatory variable or independent variable with the proxies which include company income tax, petroleum profit tax, capital gain tax, custom and excise duties, and tertiary education tax on health infrastructure financing. The research hypothesis developed was analyzed using descriptive statistic and inferential statistics. The inferential statistics was based on optimal lag length selection criteria; bound test, and ARDL test of either short-run analysis or error correction model. From the analysis, tax revenue was found to significantly health infrastructure financing.

Since tax revenue has a positive impact on health infrastructure financing, it is advisable for the government to focus on improving tax collection mechanisms. This could involve strengthening tax administration, enhancing tax compliance, and addressing tax evasion and avoidance. Also, to ensure that tax revenue effectively contributes to health infrastructure financing, policymakers should consider earmarking a specific portion of tax revenue specifically for healthcare projects. This would ensure a dedicated and sustained funding stream for the development and maintenance of healthcare facilities and services.

Moreso, it is crucial to promote transparency and accountability in the management of tax revenue and health infrastructure financing. This can be achieved through regular audits, public reporting of expenditures, and effective oversight mechanisms. By ensuring transparency, public trust and confidence in the government's use of tax revenue for health infrastructure will be strengthened.

The study is expected to provide a wide insight to the policymakers and also contributed significantly towards the decision-making of the stakeholders and the policymakers on how to generate revenue and improve financing infrastructure in Nigeria.

Reference

1. Ajiteru, W. O., Adaranijo, L. O., & Bakare, L. A. (2018). Tax revenue and infrastructural development in Osun State. *International Journal of Innovative Finance and Economics Research*, *6*(2), 50-61.
2. Ayeni, O. D., & Afolabi, O. J. (2020). Tax revenue, infrastructural development, and economic growth in Nigeria. *Munich Personal RePEc Archive*, *12*(4), 2 – 15.
3. Adeusi, A., Uniamikogbo, E.,Erah, G. &Aggreh, E. (2020). Non-oil revenue and economic growth in Nigeria. *International Business and Economics Research Journal*, *8* (2), 77–88.
4. Chan, Chris and Forwood, Danny and Roper, Heather and Sayers, Chris, Public Infrastructure Financing - An International Perspective (March 31, 2009). Productivity Commission Staff Working Paper, March 2009, Available at SSRN: https://ssrn.com/abstract=1565073
5. Chen, C. (2017). Does money matter for infrastructure outcomes? The effects of public infrastructure finance on state infrastructure quality. *Journal of Public Budgeting, Accounting & Financial Management*, *29*(3), 375 – 408.
6. Chen, C. (2018). Maximizing efficiency in state infrastructure finance: The role of competition, citizen monitoring capacity, and institutions. *The American Review of Public Administration*, *48*(8), 915-928.
7. Chan, Chris and Forwood, Danny and Roper, Heather and Sayers, Chris, Public Infrastructure Financing - An International Perspective (March 31, 2009). Productivity Commission Staff Working Paper, March 2009, Available at SSRN: https://ssrn.com/abstract=1565073
8. Oladipupo, A. O.,& Ibadin, P. O. (2016). Indirect taxes and infrastructural development in Nigeria. *Igbinedion University Journal of Accounting*, *2*(1), 331-353.
9. Hammayo, A., Shittu, I., & Abdullahi, A. A. (2020). Impact of state government revenues on infrastructural development in Bauchi State Nigeria. *International Journal of Accounting and Taxation*, *8*(1), 34-43.
10. Ibanichuka, E.,Akani, F. &Ikebujo, O. (2016). A time series analysis of the effect of tax revenue on economic development of Nigeria. International *Journal of Innovative Finance and Economic Research*, *4*(3), 16-23.
11. Ihenyen, C. J. and Mieseigha, E .G., (2014). Taxation as an Instrument of Economic Growth (The Nigerian Perspective). *Information and Knowledge Management*, *4*(12): 49 – 53.
12. Isabelle, C.,Thomas, F. & Eric, R. (2016). The economic impact and financing infrastructure spending. *American Journal of Applied Sciences*, *6*(11), 33-41.
13. Naoyuki, Y. &Umid, A. (2017). An impact evaluation of investment infrastructure in Uzbekistan. *Journal of Asian Economics*, *49*, 1-11.
14. Owolabi, O. A., Ogunleye, O. O., & Inimgba, J. T. (2019). Effect of diverse tax revenues and effective government on economic growth in Nigeria. *EuroEconomica*, *38*(2).
15. Owolabi-Merus, O. (2015). Infrastructure development and economic growth nexus in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, *5*(1), 376.
16. Oladipupo, A. O., & Ibadin, P. O. (2016). Indirect taxes and infrastructural development in Nigeria. *Igbinedion University Journal of Accounting*, *2*(1), 331-353.
17. Olayungbo, D. & Olayemi, F. (2018). Dynamic relationships among non-oil revenue, government

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spending, and economic growth in oil-producing country. *Future Business Journal*, *4(*2), 246-260.
18. Ofoegbu, N., Akwu, D. & Oliver, O. (2016). Empirical analysis of the effect of tax revenue on economic development of Nigeria. *International Journal of Asian Social Science*, *6*(10), 604-613.
19. Orji, J. (2020). Financial Management 2. Enugu: Splah media Organisation.
20. Ogbonna, G.N. &Appah, E., (2012) Impact of tax reforms and economic growth in Nigeria: A Time Series Analysis. *Current Res. J. Soc. Sci. 4*(1): 62-68.
21. Onakoya, A. & Afintinni, O. (2016). Taxation and economic growth in Nigeria. *Asian Journal of Economic Modelling*, *4*(4), 199-210.
22. Pravakar, S., Dash, R. K., & Nataraj, G. (2010). Infrastructure development and economic growth in China. *Institute of Developing Economies Discussion Paper*, *261*.
23. Taiwo, A. (2017). The contribution of value-added tax to economic development of Nigeria.
24. *Annals of Economic Series*, *5*(3), 65-87.
25. Worlu, C. &Nkoro, E. (2012). Tax revenue and economic development in Nigeria. *Academic*
26. World Health Organization. WHO Global Health Expenditure Atlas. Geneva, Switzerland: World Health Organization; 2014.
27. Weiping, Y. (2010). The reflection of further reform of real estate tax. *Journal of trends economics and Management*, *1*(2), 19-25.
28. Yaya, K. (2013). The structure of taxes and economic growth in Cote d'ivoire: An econometric investigation. *Journal of Research in Economics and International Finance*, *2*(3), 39-48.

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