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An Evaluation of the Contributions and Prospects of Road Taxes to Total Tax Collections by States in Nigeria 2010-2022

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Abstract

The 36 federating states of Nigeria have a persistent paucity of funds for the provision of public goods and services for the citizens. However, this came when the Taxes and Levies Approved List for Collection Act 1998 availed the states of eleven different taxes, which, if properly harnessed, could alleviate the financial difficulties. Therefore, this study aims to longitudinally evaluate the contributions of road taxes, which are one of the taxes collected by states in Nigeria. To achieve this aim, data on collection from state road taxes was collected from the National Bureau of Statistics 2010-2022 annual reports. Descriptive statistical tools of tables, charts, and percentages are utilized in analyzing collected data, while a public policy analytical framework underpinned the study. Results from the study revealed that road taxes are making moderate contributions to total taxes collected by states. Therefore, if the states could strengthen policies, laws and regulations on road taxes, it could greatly enhance their total collections from taxes. The policy implication of this finding is that road taxes as a public policy impact taxes collected by states even though insignificant; therefore, policymakers should strengthen this policy for national development.

Key Words: Longitudinal, Contributions, Potentials, Internally Generated Revenue, Taxes and Levies,

1. Introduction

Taxation is acknowledged as a source of sustainable revenue to empires and civilizations, including the oldest ancient civilizations such as the Mesopotamian, Egyptian, Greek, and Romans (Jia, Li & Gao, 2019; McLure, Neumark & Cox, 2024). Likewise, taxation is a significant source of providing public funds in modern civilizations commencing with Great Britain, the precursor of modern taxation in the 1880s which spread to the rest of the World (OECD 2022; 2021a). Indeed, taxation is so significant to developed economies that there is a

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saying nothing is certain except death and taxes (United States National Constitution Centre, 2023). This is perhaps implying that as death is certain on every citizen, so also compliance to payment of due taxes to the government. It is also likely depicting that governments in modern societies are enforcing the collection of due taxes from citizens, perhaps in the same way that death is not calming in taking their souls.

Consistent to above, the developed countries of the Organization for Economic Cooperation and Development (OECD) recorded tax to Gross Domestic Product (GDP) ratio of 34% in 2022 which is the highest globally. Conversely, the tax to GDP ratio in the countries of Latin America and the Caribbean is 21.70% that of Asia-Pacific countries is 19.80% while that of Africa is 15.60% (Organization for Economic Cooperation and Development, 2024). Consequently, it could be contended that citizens as individuals, owners of businesses or corporations are paying taxes to governments across the globe with variations in the types, and rates of the taxes. One of the taxes contributing to aggregate national or sub-national tax collection is road taxes which are defined as taxes which road users are required to pay in order to use the road network (Amadi, 2022; Creightney, 1993). It is also opined that road taxes are better described as road user taxation with the purpose of taxing vehicles for road network usage (Amadi, 2021).

Road taxes are existing and contributing to aggregate sub-national and national tax collections in developed economies of United States of America (Office of Highway Policy, 2001), the United Kingdom (Driver and Vehicle Licensing Agency, 2023; Griffiths, 2022) and member countries of the European Commission (European Commission, 2002). Similarly, road taxes exist in developing countries of India (Purohit & Purohit, 2010); Malaysia (Ministry of Transport Malaysia, 2024; Safian & Hamzah, 2019); South Africa (van Rensburg & Krygsman, 2020) and Nigeria (Amadi, 2022) which is the focus of the study. Nigeria is a country composed of 36 states as the federating units and a Federal capital as the seat of government at the centre and also a federating unit. The federating units which are saddled with numerous public responsibilities and functions are bedevilled with paucity of funds to discharge their obligations to the citizens. The dearth of funds is so severe to the extent that only three states are capable of depending on their Internally Generated Revenue (IGR) now and perhaps in the foreseeable future (Adegboyega, 2019; Oluwole, 2022).

However, the Taxes and Levies approved list for collection Act 1998 has assigned the states eleven different taxes which if properly harnessed could perhaps alleviate the financial difficulties. One of these taxes is the road taxes; consequently, the aim of this study is to longitudinally evaluate the contributions of this type of tax to total collected taxes by states and its prospects in the states. To achieve this aim, quantitative data on road taxes collections by the states 2010-2022 is collected from the annual reports of National Bureau of Statistics (NBS) 2010-2022. Results from this study may prompt policy makers at states to appreciate the contributions of road taxes to their collected taxes and its prospects. This is section one as the introduction of the study, section two is on literature review, section three dwells on methods of the research, section four is on results and discussion while section five is on conclusion of the study.

2. Literature Review

2.1 Nigeria

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Nigeria is a West African country practicing federalism grounded in the American presidential system of democratic governance. The country has 36 states and a Federal Capital Territory (FCT) as the seat of the government at the centre and the arms of government are composed of the Executive, the Legislature and the judiciary. The 36 states of the federation have elected governors, state legislature and the judiciary. Federal systems of governance are almost always associated with frictions and conflicts bordering on resource control and utilization. This is also the case with Nigerian federal system which is an upshot of regional systems in the early 1960's that were characterized with who control which resources and power to utilize the resources or proceeds from their sales (Elaigwu, 2024). Taxation is not an exception from the frictions between the federal and state governments; thus, the Taxes and Levies (Approved List for Collection) Act No. 1998 clearly state taxes collectable by the federal and state governments.

The Federal government is empowered to collect eight (8) taxes while the state governments are collecting eleven (11) taxes among which are the road taxes (Taxes and Levies Act, 1998). Nigeria has a total length of 195,000km of road out of which 32,000km are federal roads while 31,000km is state roads. From the 195,000km, only about 60,000km is paved and a large proportion of the paved roads are in poor and unacceptable condition due to insufficient investment and lack of adequate maintenance (National Infrastructure Concession Regulatory Commission, 2017; The Punch, 2023). Thus, the federal and 36 states governments in Nigeria own 63,000km out of the 195,000km in the country, the remaining 132,000km are local roads; perhaps owned by the local councils being the third tier of government. Recently the Joint Tax Board (JTB) saddled with harmonizing taxes in the country, the Federal Inland Revenue Service (FIRS) vested with collection of federally collectable taxes and the States Internal Revenue Services (SIRS's) of the 36 states have started showing keen interest in road taxes (Majid, 2021; News Agency of Nigeria, 2022; Popoola, 2023).

Road taxation laws in Nigeria are governed by Federal Road Maintenance Agency (FERMA) Act, and the Federal Inland Revenue Service Act for federal roads. The States Road Traffic Maintenance Authority Acts, laws and regulations governed state roads (Atoyebi, 2023). Road taxes in Nigeria is made up of Highway Tolls, Vehicle Taxes, Truck Weigh-Bridges, Parking Fees and Petroleum Tax for the federal roads all of which are paid into the federation account (Central Bank of Nigeria, 2003). Road taxes at the states varies on the capacity of engines of the vehicles and kinds of vehicles categorized into cars, taxis, vans, lorries, trucks, buses, tractors, motorcycles, and tricycles. There are also annual vehicle road taxes, charges on vehicle documents and road traffic offences (Atoyebi, 2023). One of the obvious reasons for road taxes in Nigeria is revenue generation for maintaining existing roads and constructing new ones. However, there are no evidences suggesting that the taxes are utilized for that purpose as the taxes are pooled into general government revenue funds at both federal and states levels (Martin, 2022)..

Conversely, existing road network are requiring huge investments estimated at N17.61trillion to repair all the roads which exceeds 70% of federal and states expenditure (Martin, 2022). However, road taxes are so negligible to make any impact on maintaining roads; thus, the heavy reliance on annual budgetary allocations (CBN, 2003) which is also no longer forthcoming (Martin, 2022). To construct one kilometre of new road now in Nigeria, it cost N1billion due largely to inflating of contract sum (Onogu, 2021); thus, road taxes may not have any impact on this. This resulted into strong suggestions for Private capital participation as successfully

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recorded in Malaysia, India and South Africa (National Infrastructure Concession Regulatory Commission, 2017; The Punch, 2023).

2.1.1 History of Taxation in Nigeria

Nigeria came into being in 1914 after the amalgamation of the Northern and Southern protectorates conquered by the British colonial power in the early 1880's and 1990, respectively. Prior to these events, the country is made up of kingdoms and empires in the North and South of the country. These include the Hausa states in the North such as Kano, Katsina, Zaria, and Gobir; Kanem-Borno; the Jukun states of Kwararafa, Kona, Pinduga, and Wukari and the Igala, Nupe, and Ebira states. In the South, there were the Yoruba states of Ife and Oyo, the Edo state of Benin, the Itsekiri state of Warri, the Efik state of Calabar, and the Ijo (Ijaw) city-states of Nembe, Elem Kalabari, Bonny, and Okrika. Therefore, the history of taxation dates back to pre-colonial, colonial and post-colonial Nigeria. Therefore, Nigerians as individual citizens, owners of businesses and corporations are used to paying taxes for a long period of time and are perhaps committed to paying due taxes.

2.2 Empirical Literature Review

Chilunjika, Uwizeyimana, and Chilunjika (2023) analyses the effectiveness of road tolling-systems which are essentially road taxes as instruments for mobilising domestic revenue in Zimbabwe. The research was designed as an exploratory research that aims to discover new ideas and gain insights into the subject under investigation. Similarly, the study was based on the pragmatic research philosophy that relied on triangulation of both qualitative and quantitative research methods. Data for the study was collected from both primary data sourced from conducting of in-depth interviews with key participants, the toll collectors, motorists and purposively selected management staff of Zimbabwe National Road Administration and secondary data collected from documentary content analysis of relevant publications. Collected data was analysed using content and thematic techniques of analysis using the Statistical Package for Social Sciences (SPSS). Results from the study revealed that Zimbabwean road tolling model is a progressive, effective and reliable tool for raising internal revenue and that the performance of the toll tax is up-to-date.

Marewa, Lumentut, and Gandi (2023) evaluated the effectiveness of Motor Vehicle Tax Contribution's to the income of South Sulawesi province of Indonesia 2017-2020. The study collected data from primary source through the conduct of interviews with those engaged in the decisions of road taxes in the province. Likewise, secondary data on road taxes was collected by reviewing books, legislative papers, and data from the internet. To analyse collected data, qualitative approach to data analysis which encompasses descriptive analysis of explaining road taxes and it effectiveness was used. Results from the study revealed that targeted and actual collection of motor vehicle taxes kept rising over the period of the study which in turn increases the income of South Sulawesi province of Indonesia 2017-2020. Likewise, Anaman and Anyas (2021) explored the implications of vehicle taxes on ride hailing services in the developing economy of Ghana and its effect on the activities of drivers who patronize such services. To carry out the study, primary data in form of interviews was conducted with Uber drivers in Greater Accra region of the capital city of Ghana while purposive sampling technique was adopted to draw sample for the study. Thematic analysis was used to analyse data collected from the interviews. Results from the study indicated that vehicle taxes are needful to ensure sustainable government revenue and governance.

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Adegbite and Azeez (2021) examined the effect of road tax on revenue generated by southwest state in Nigeria from 2010 to 2019. To conduct the study, data was collected on total revenue generated by the six (6) south western states as the dependent variable, while the independent variables are road tax, PAYE, direct assessment and other taxes from the respective State Board of Internal Revenue Services (SBIRS) and the National Bureau of Statistics (NBS) 2010 – 2019. Thus, the collected data set is a Panel data which was analysed through fixed and random effect models while he study was underpinned by the benefit received and cost of service theories. Findings from the study revealed that all the variables have positive significant effect on revenue generated in all the sampled states. An increased in road tax significantly, statistically and positively influence influx in revenue generated by all the sampled state signifying that road tax has positive significant impact on revenue generation.

Kamruzzaman and Mizunoya (2021) conducted a study that estimates optimum corrective fuel taxes for Bangladesh and correlates them with climate change policy. The study used dataset obtained from relevant authorities in Bangladesh to estimates corrective fuel taxes that internalize the negative externalities of road vehicles, and then correlates such fuel taxes with climate change policy. The study firstly used the European road transport emission model (COPERT IV) to precisely estimate the externalities. Secondly, using the same model, the study estimated the reduction in greenhouse gas emissions caused by the fuel taxes and thirdly, the study developed a correlation between the fuel tax rate and emissions reduction. Findings from the study indicated that congestion and accident externalities are the two main fuel tax components for Bangladesh; net social welfare gain per year is US$302.11 million while net revenue gain per year is 3.59% of GDP. Similarly, corrective diesel tax reduces fuel consumption by 18.10% and increases fuel efficiency by 12.53%, and reduces GHG emissions by 5.77%.

Pandey, (2021) examined the impact of road tolls charges on transportation and Indian economy with the main objective of making the government become aware of the benefits and the dark side of such tolls. To conduct the study, primary data sourced through administration of questionnaires to owners of transportation companies and private car users and secondary data sourced from government publications and academic journal articles on the advantages and disadvantages of tolls. Simple descriptive statistics of presenting and discussing figures was used to analyse collected data. Results suggest that road taxes are increasing government revenue although there is lack of accountability in the collection and usage of the taxes. Conversely, 90% of transporters and members of the public using cars and other vehicles are demanding for toll free roads that are well maintained with necessary safety measures. Similarly, respondents opined that tolls are increasing transportation cost resulting into increase in the price of all goods and services thereby leading to inflation.

Ardiyono, Parenrengi, and Faturachman (2018) evaluated the impact of the toll road on accessibilities, trades, and investments in the region it traverses. To achieve the objective of the study, data was collected first from a survey of 331 Small and Medium Enterprises (SMEs) in the logistics, hotel and restaurant industries. The second one is bank loan data sourced from Bank Indonesia, while the third one is investment data from Investment Coordinating Board of Indonesia (BKPM). Collected data was analysed using qualitative approach, difference-in-difference approach, and Analysis of Variance (ANOVA) meant to determine differences between the unrelated groups in the study. Results from the analysed data indicated that after two years of its operation, Cipali toll road has increased accessibility, mobility, trade, and

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investment in the region it traverses. Specifically, travel time was reduced by 39%, while the cargo volume of the local businesses increased by 30% to 40% leading to an improvement of wholesale trade volume in almost all regencies.

Davide, Alberini, and Linn (2017) conducted a study charging drivers by the Pound: the effects of the United Kingdom (UK) vehicle tax system to examine the effect of the Vehicle Excise Duty (VED) a form of road taxes on new vehicle registrations and carbon emissions in the United Kingdom 2005-2010. To achieve the aim of the study, monthly data on number of new registered vehicles in the UK January 2005 to October 2010 was collected from the largest dataset in the UK compiled by R. L. Polk & Company. Collected data was subjected to empirical estimation analysis that follows a reduced-form approach in which the dependent variable of the model is the log registrations by model-trim variant i, make m, and period t, normalized by the number of months in which the VED policy was implemented. Results from the study revealed that VED increased the adoption of low-emissions vehicles and discouraged the purchase of very polluting vehicles. Thus, road taxes are put in place not only to generate more revenue, but to address environmental concerns which are of global significances.

Goldman, Corbett and Wachs (2001) examined the extent to which states have decentralized the transportation policy making of whether to use taxation powers to fund transportation improvements by local and regional governments in all the fifty (50) states of the United States of America. The main purpose of the study is to generate knowledge on local option transportation taxes in all fifty states of the United States of America by examining the laws that states have used to authorize these taxes, the extent to which local areas have adopted them, and how the revenues are used and governed. Data for the study was collected from primary sources of data by interviewing stakeholders on the issues at hand while descriptive statistical tools of tables and charts are used to analyse and present collected data for the study. Results from the study revealed that road transportation taxes are adopted in at least 46 states and revenue from this source of taxation is enhancing local councils' tax bases and tax revenue collections.

The essence of undertaking literature review is to identify gaps in the literature considered as an area that has not yet been explored or is under-explored which could be a population or sample (size, type, location, etc.), research method, data collection and/or analysis, or other research variables or conditions (National University United States of America, 2024). Chilunjika, Uwizeyimana, and Chilunjika (2023), Marewa, Lumentut, and Gandi (2023), Adegbite and Azeez (2021) and Pandey, (2021) as the first grouping of reviewed studies in this study focused on contributions of road taxes to revenue generation. Conversely, Kamruzzaman and Mizunoya (2021), Anaman and Anyas (2021), Ardiyono, Parenrengi, and Faturachman (2018), Davide, Alberini, and Linn (2017), and Goldman, Corbett and Wachs (2001) as the second group focuses on road taxes and varied issues such as tolling policies, carbon emission reductions, and accessibility to services. Therefore, there are literature gaps of population and sample size, type and location, research methods, data and its method of analysis, research variables, theoretical underpinnings, and period covered by the studies even among studies that focused on road taxes and revenue generation. Therefore, numerous literature gaps permit the conduct of this study.

2.3. Theoretical Framework

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Theoretical framework simply refers to the blueprint or guide for the conduct of research (Fulton, 2010) and is the foundation upon which a research is laid (Kivunja, 2018). Indeed, to make research findings more meaningful (Yang, Bento & Akbar, 2019), theoretical framework need to be situated and contextualized in research studies to serve as guide (Akintoye, 2015). Consequently, it is of significance to identify and link this study with a suitable theoretical framework. Public policy is described as connoting laws, regulations, procedures and administrative actions of governments and institutions that affect members of the public (United States Centre for Disease Control and Prevention, 2015). Arguably, decisions, actions or policies put in place by governments and institutions; perhaps, determine the quality of air we breathe, the water we drink, the food we eat, the kind of environment we live in and other spheres of our lives.

Thus, good or bad policies developed and implemented by governments and institutions always affect the public which demand that such policies be analysed to establish whether they are good or bad to the public (Torjman, 2005). Public policy analysis in the United States of America is deep rooted in the Flood Control Act of 1933 (Bromley, 1990; Dorfman, 1976). Drawing from this, the study evaluates the contributions of road taxes to total tax revenue of the 36 states in Nigeria which are persistently under financial difficulties. Evaluation is the process of examining a programme by collecting and analysing information about the programme's activities, its characteristics, and outcomes to aid in making informed decision (Patton, 1987). Evaluation can be first, formative evaluation undertaken to ensure that a programme is viable, suitable and adequate before it is fully implemented. Second, process evaluation that assists in determining whether the implemented programme is as intended. Third is outcome evaluation which measures the effect of an implemented programme on target population. Fourth, is impact evaluation, which is about measuring the effectiveness of a programme in achieving its ultimate goals (Mohammed, 2019); this study focuses on the fourth type of evaluation. Therefore, public policy analysis is employed as the analytical framework underpinning the conduct of this study.

3. Research Methods

The aim of this study is to evaluate the contributions of road taxes to total tax collections by the 36 states in Nigeria 2010-2022. This is achieved by ascertaining the contributions of this reported neglected tax to overall tax collections by the states in Naira monetary terms, percentages and by conducting trends analyses over the period of the study. The period covered by the study 2010-2022 is perhaps long enough to reveal to policy makers in the states the importance of this tax to their total tax revenue collections. The study is designed as ex-post facto in which quantitative secondary data on road taxes, other forms of taxes and total taxes collected by the states is collected from annual reports of the National Bureau of Statistics 2010-2022. Consequently, descriptive statistics which enables the presentation of large volumes of research data that could be numerically or graphically presented in a more sensible way (Jaggi, 2024) is adopted in analysing and presenting collected data in the study. However, to statistically determine whether the means of PAYE, direct assessment and road taxes are the same in their interaction towards total collected taxes, a test of Analysis of Variance (ANOVA) is conducted. Road taxes are generating .0.5-2.2% of GDP in African countries with available data such as Ethiopia, Ghana, Rwanda and Uganda and the value of the collections are considered as substantial (Nair & Warwick, 2021). Drawing from the work of Nair & Warwick, (2021) and since this study is based on contributions to total revenue, contributions of road

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taxes in this study is rated on maximum of 5% of total revenue broken into low, medium and high contributions based on quartiles of 25%, 50% and 75%-100% (Altman & Bland, 1994). Consequently, if percentage contribution on average is 0-1.25% it is considered low; if it is 1.26-3.74% it is considered as moderate contribution and if it is 3.75-5% it is considered as high-level contribution. In evaluating the prospect of road taxes to total collected taxes, the study analyses reported attitudes of states towards road taxes, state of Nigerian roads, increasing number of vehicles plying the Nigerian road networks.

4. Results and Discussions

In order to achieve the aim of this study, collected, organized, summarized, analysed and interpreted data for the study is presented in this section commencing with Figure 4.1 on trends of total collected taxes revenue by the 36 states 2010-2022.

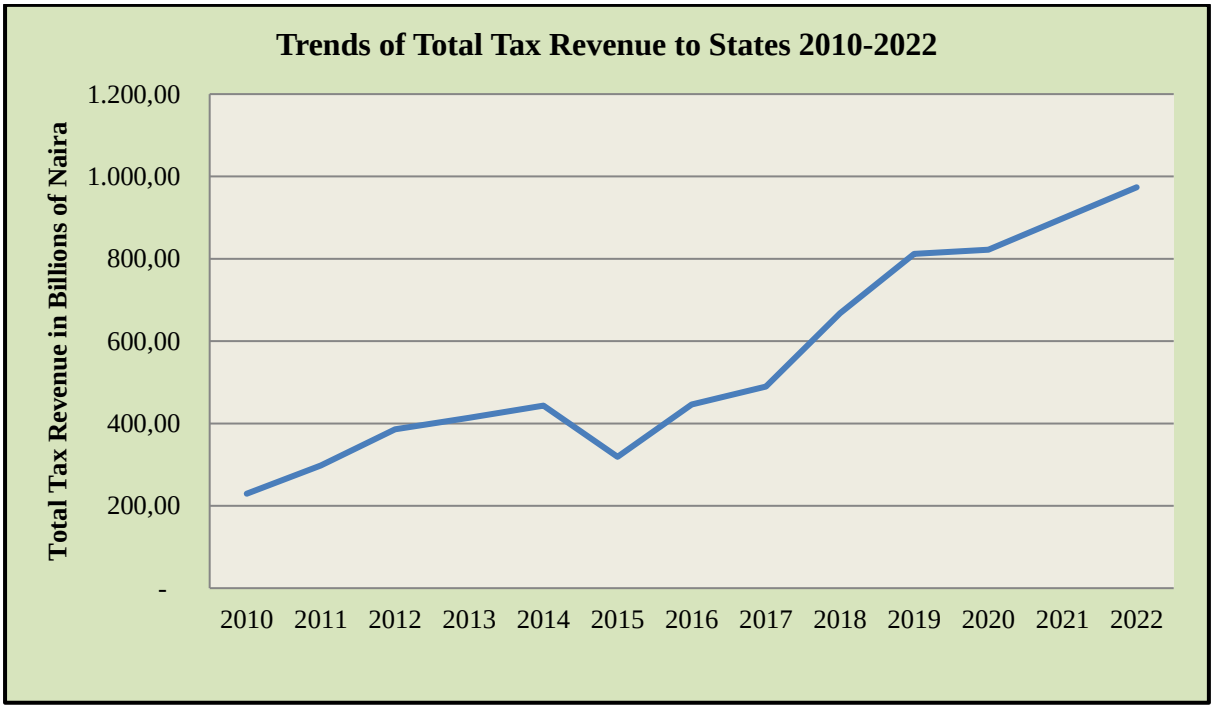


Figure 1 Trend of Total Taxes (PAYE, Direct Assessment and Road) Collected by States 2010-2022

From Figure 1, the total tax revenue collected by the states in 2010 was N229.40 billion, which increased to N298.09 billion in 2011, thereby indicating an increase of N68.69 billion or 29.94% over tax revenue collected in 2010. Collected tax revenue by the 36 states in Nigeria increased to N385.74 billion in 2012, thus showing an increase of N87.65 billion or 29.94% compared to total collections in 2011. Similarly, total taxes revenue collected by the 36 states in 2013 amounted to ₦413.80billion indicating an increase of ₦28.06billion or 7.28% above 2012 collections. Likewise, total taxes revenue collected by the 36 states in Nigeria increased to ₦443.53billion in 2014 signifying an increase of ₦29.72billion or 7.18% increase against 2013 collections. Conversely, total taxes revenue collected by the states in 2015 decreased to N319.09billion in 2015 thereby revealing a decrease of ₦124.44billion or 28.06% decrease on comparison with total taxes revenue collected in 2014.

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However, this downward trend was reversed in 2016 as the states collected total taxes revenue amounting to N446.22billion in this year signifying an increase of ₦127.13billion or 39.84% above collections in 2015. Taxes revenue collections further increased in 2017 with total amount being N489.83billion revealing an increase of ₦43.61billion or 9.77% above 2016 collected taxes revenue. The increasing trend is sustained in 2018 with total taxes revenue collections of ₦667.82billio; thus, showing an increase of ₦177.99billion or 36.34% compared to total collections in 2017. Revenue from taxes collected by the states further increased to ₦811.98billion in 2019 which represents an increase of ₦144.16billion or 21.59% in comparison to collections in 2018. Total collected taxes revenue furthermore, increased to ₦822.09billion in 2020 showing an increase of ₦10.11billion or 1.24% increase above collected taxes revenue in 2019. In 2021, the states collected N897.89billion as total taxes revenue revealing an increase of ₦75.80billion or 9.22% of total collections in 2020. Likewise, in 2022, total of ₦973.69billion was collected as total taxes by the states in Nigeria which reveals an increase of ₦75.80billion or 8.44% increase in collections over 2021. Figure 4.2 is breakdown of the total taxes collections 2010-2022 into other taxes composed of PAYE and direct assessment in one hand and road taxes on the other hand.

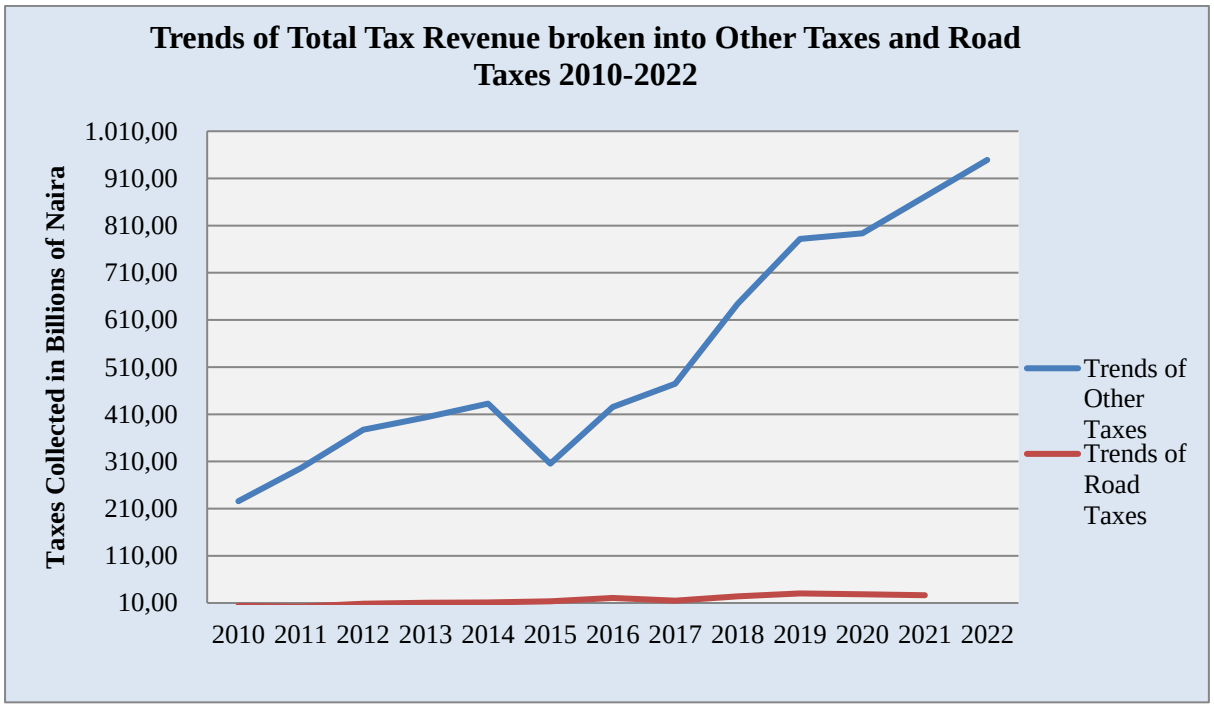


Figure 2 Breakdown of total taxes into other taxes (PAYE and Direct) and road taxes

From Figure 2, total revenue from other taxes (PAYE and Direct Assessment) is ₦225.80billion in 2010 while road tax for the year is ₦3.60billion. Revenue from other taxes increased to ₦295.78billion in 2011 while road taxes decreased to ₦2.31 compared to 2010. In 2012 revenue from other taxes increased to ₦377.14billion also road taxes increased to ₦8.60billion in comparison to 2011. Other taxes further increased to ₦403.38billion in 2013 similarly road taxes increased to ₦10.42billion. In 2014, total revenue from other taxes is ₦432.47billion while road taxes is ₦11.06billion thereby revealing an increasing trend in both

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other taxes and road taxes over 2013 collections. However, other taxes showed a decreasing trend in 2015 with collection amounting to ₦305.39billion while road taxes showed increasing trend with collections totalling ₦13.70billion. Both other taxes and road taxes revealed increasing trends in 2016 with total collections of ₦425.61billion and ₦20.60billion respectively. In 2017, other taxes showed increasing trend with collections of ₦474.77billion while road taxes revealed decreasing trend with collection of ₦15.06billion.

Total revenue from other taxes in 2018 amounted to ₦643.86billion while collected road taxes amounted to ₦23.96billion thereby indicating increasing trends in both. In 2019, collected other taxes amounted to ₦781.71billion while road taxes amounted to ₦30.27billion thereby indicating increasing trends in both taxes. Collected other taxes in 2020 increased to ₦793.70billion while road taxes decreased to ₦28.39billion; thus, while other taxes showed increasing trend, road taxes showed decreasing trend in the year. Collected other taxes increased to ₦871.41billion in 2021 while road taxes further decreased to ₦26.48billion in the same year thereby signifying an increasing trend for other taxes and a decreasing trend for road taxes. In 2022, other taxes showed increasing trend with collections amounting to ₦949.12billion; however, road taxes showed decreasing trend with collections amounting to ₦24.57billion. Graphical results presented in Figure 4.1 and 4.2 are best for understanding patterns in the data. Conversely, numerical descriptive statistics is more precise and objective; therefore, it is contended that the two should be combined when presenting research results to enhance understanding (Jaggi, 2024). Consequently, Table 4.1 is on numeric results of total other taxes, road taxes, total collected taxes and percentages of other taxes road taxes from total collected taxes by states in Nigeria 2010-2022.

Table 1 Total other taxes, road taxes, total collected taxes and percentages of other taxes and road taxes from total collected taxes by states in Nigeria 2010-2022

S/N	Years	Total Other Taxes in Billions of Naira (A)	Total Road taxes in Billions of Naira (B)	Total Collected Taxes (TCT) C = A + B	Percentage of Other Taxes from TCT (A/C * 100)	Percentage of Road Taxes from TCT (B/C * 100)
1	2010	225.80	3.60	229.40	98.43	1.57
2	2011	295.78	2.31	298.09	99.22	0.78
3	2012	377.14	8.60	385.74	97.77	2.23
4	2013	403.38	10.42	413.80	97.48	2.52
5	2014	432.47	11.06	443.53	97.51	2.49
6	2015	305.39	13.70	319.09	95.71	4.29
7	2016	425.61	20.60	446.22	95.38	4.62
8	2017	474.77	15.06	489.83	96.93	3.07
9	2018	643.86	23.96	667.82	96.41	3.59
10	2019	781.71	30.27	811.98	96.27	3.73
11	2020	793.70	28.39	822.09	96.55	3.45
12	2021	871.41	26.48	897.89	97.05	2.95
13	2022	949.12	24.57	973.69	97.48	2.52
14	**Total**	6,980.15	219.02	7,199.17	96.95	37.81
15	Average contribution for the 13 years = 37.81/13 = 2.91					2.91

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From Table 1, total other taxes collected in 2010 is ₦225.80billion representing 98.43% of the total while road taxes collected is ₦3.60billion representing 1.57% of total collected taxes in the year. Total other taxes increased to ₦295.78billion or 99.22% of total collected taxes in 2011 conversely, collected road taxes decreased to ₦2.31billion which is 0.78% of total collected taxes. In 2012, other taxes collection is ₦377.14billion which is 97.77% of the total while road taxes is ₦8.60billion or 2.23% of total collected taxes. Total other taxes collected in 2013 is ₦403.38billion or 97.48% of total collected taxes while road taxes collected is ₦10.42billion or 2.52% of the total collected taxes. In 2014, total other taxes amount to ₦432.47billion representing 97.51% of total collected taxes, on the other hand, road taxes amount to ₦11.06billion or 2.49% of total collections. Total other taxes collected in 2015 is ₦305.39billion which is 95.71% of total collected taxes while road taxes collected is ₦13.70billion or 4.29% of total collected taxes.

Total other taxes collected in 2016 amount to ₦425.61billion which is 95.38% of the total collected taxes; conversely, road taxes collection is ₦20.60billion or 4.62% of the total collections in the year. In 2017, other taxes amount to ₦474.77billion or 96.93% of total collected taxes while road taxes amount to ₦15.06billion or 3.07% of the total. In 2018, other taxes amount to ₦643.86billion or 96.41% of total collections while road taxes collections amount to ₦23.96billion or 3.59% of total collected taxes. Total other taxes collected in 2019 amount to ₦781.71billion or 96.27% of total taxes, on the other hand, road taxes collection amount to ₦30.27billion or 3.73% of total collection. In 2020, other taxes collected amounted to ₦793.70billion or 96.55% of total collections while road taxes collection is ₦28.39billion or 3.45% of total collections. Total collected taxes in 2021 amount to ₦871.41billion representing 97.05% of total collections; conversely, road taxes collection amount to ₦26.48billion or 2.95% of total collections. In 2022, other taxes collected amount to ₦949.12billion which is 97.48% of the total while road taxes collected amount to ₦24.57billion or 2.52% of total collections.

From presented results, it could be contended that the contributions of road taxes to total collected taxes is insignificant averaging 2.90% in the thirteen years covered by the study. Conversely, other taxes composed of PAYE and Direct Assessment averaged 97.10% of total collected taxes. This notwithstanding, a further statistical test to determine whether there is statistical evidence that the means of PAYE, direct assessment and road taxes are significantly different is conducted in form of Analysis of Variance (ANOVA). The null hypothesis of the test is:

H_O: There is no difference between the means of PAYE, direct assessment and road taxes in their interaction with total collected taxes.

Table 2 Summary statistics of test of ANOVA

Groups	*Count*	*Sum*	*Average*	*Variance*
PAYE	13	6609.305	508.4081	53023.25
Direct Assessment	13	370.846	28.52661	145.6224
Road Taxes	13	219.021	16.84774	89.44859

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From Table 3, the summary statistics of test of ANOVA indicated that three taxes of PAYE, direct assessment and road taxes were tested each having 13 counts. The sum of PAYE is 6609.305, the sum for direct taxes is 370.846 while for road taxes, is 219.021. The averages of the three taxes are 508.4081, 28.52661 and 16.84774 for PAYE, direct assessment and road taxes respectively. The value of variances for the three taxes are 53023.25 145.6224 and 89.44859 for PAYE, direct assessment and road taxes respectively. Table 3 is results of the test of ANOVA.

Table 3 Results of test of ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2045568	2	1022784	57.61297	6.02798	3.25945
Within Groups	639096.2	36	17752.67			
Total	2684665	38				

Table 3 is the results of test of ANOVA to statistically determine whether evidence exist that the means of PAYE, direct assessment and road taxes are significantly different. The chosen p-value in this test is 0.05 and from the results, the p-value of 6.02798 is greater than the chosen p-value of 0.05; thus, the study fails to reject the null hypothesis that there is no difference between the means of PAYE, direct assessment and road taxes in their interaction with total collected taxes. This simply means that there is no difference in the means of PAYE, direct assessment and road taxes in their interaction with total collected taxes. Therefore, this result of test of ANOVA is confirming the importance of road taxes to total collected taxes which is consistent with descriptive statistical results indicating that it is making moderate contribution averaging 2.91% of total collected taxes by states in Nigeria 2010-2022.

4.1 Discussions

Taxation being the most viable tool of raising public funds resulted into national and sub-national governments to be enforcing diverse taxes to aid in generating more funds for public administration. Road taxes is one of the taxes that states in Nigeria as sub-national government are allowed by the law to collect to assist them in raising more funds for public development. This study, evaluates the contribution of road taxes in enhancing taxes collected by states 2010-2022. Results in Figure 1 is on trends of total taxes collected by the states over the period of the study which on the overall showed increasing trends in all the years except for 2015 which was an election year. The general election of 2015 has triggered lots of tensions, anxiety and apprehensions and violence among citizens pre, during and post-election as both the incumbent president and candidate of the main opposition party are strong contenders. Therefore, there are regional, religious and tribal coloration to the election with potentials of social crises and even the break-up of the country. Pre, during and post-election violence are reported as having strong relationship with economic performance which has strong linkage with taxation (Ojeaga & Odejimi, 2015). Therefore, this may be the reason for the declining pattern of total taxes in 2015.

Specifically, on road taxes, Figure 2 broke down the trends of total collected taxes into other taxes composed of PAYE and direct assessment and road taxes. Similar, to the total collected taxes, road taxes on the overall showed increasing trends 2010-2022 with the exception of 2015 which showed a declining trend; perhaps due to the same election crises in the year. The two

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trends of other taxes and road taxes revealed the low level contribution of road taxes to total collected taxes as its trends is just slightly above the horizontal axis of the Figure. While results in Figures 1 and 2 revealed patterns, Table 1 present numerical results on the contributions of road taxes and other taxes; perhaps, in more precise and objective manner. From Table 1, total other taxes generated by the 36 states 2010-2022 amounted to ₦6,980.15billion (₦6.89trillion) which is represented 96.95% of total collected taxes of ₦7,199.17billion (₦7.20trillion) over the period of the study. Conversely, road taxes collected by the states 2010-2022 amounted to ₦219.02billion which is represented 3.05% of total collected taxes.

Therefore, the contribution of road taxes could be regarded as moderate and this finding is consistent with Chilunjika, Uwizeyimana, and Chilunjika (2023); Marewa, Lumentut, and Gandi (2023); carried out in Zimbabwe and Indonesia respectively. Similarly, the finding is consistent with Adegbite and Azeez (2021) that was carried out in the south-western region of Nigeria. In practice, this moderate contribution of road taxes to total collected taxes by states is in agreement with inadequacy of the road network of 195,000km in a country with over 200million people. Similarly, it is consistent with the neglect of the available road network with only 60,000km being paved; thus, citizens may not be complying to pay for the road taxes and governments may also be finding it difficult to enforce the taxes. Looking at the result from the perspective of public policy evaluation, road taxes have proven to have impact on total collected taxes even though moderately, but has been an effective policy that is enhancing total collected taxes revenue generation of states in Nigeria 2010-2022 as supported by result of ANOVA test.

In evaluating the prospect of road taxes on total collected taxes, the prospects may be classified into short, medium or long term. In the short term, states in Nigeria could uniformly address their reported casual and negligent attitude towards road taxes (Adegbite & Azeez, 2021; Atoyebi, 2023) by properly collecting the tax as at when due. Towards this, the states are working on streamlining road taxes under the Joint Tax Board (JTB). This along with reported increasing number of vehicles plying Nigerian roads estimated at 6.6million in 2010 which has risen to 11.90million in 2022 could be termed as short term prospects of road taxes. Out of the 195,000km of roads networks in Nigeria, only 60,000km are paved the rest are un-paved; thus, governments could pave the remaining 159,000km roads network which may enhance road taxes through compliance induced by service for tax. This could be termed as medium term prospects of getting more road taxes by states in Nigeria. The long term prospect of road taxes is that the existing 195,000km road network is described as inadequate for Nigeria with a land mass of 923,768 square kilometres and a population of over 220 million (The Punch, 2023). Consequently, governments could construct more road networks which in turn may enhance collection of more road taxes, improve socio-economic development and well-being of citizens as a long term measure.

5. Conclusion

Based on above finding that indicated road taxes as impactful on total taxes collected by the 36 states in Nigeria, even though moderately, it could be concluded that road taxes is making significant contributions to total collected taxes by states in Nigeria. However, based on the variables of attitudes of states to road taxes, increasing number of vehicles and possibility of constructing more road network; it could be concluded that road taxes is prosperous in the short, medium and long term. Consequently, the study is recommending that policy makers

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should pay attention to putting in place enabling policies, laws and regulations to enhance the assessments and collections of all forms of road taxes in Nigeria. Similarly, governments should pay attention to paving of existing road networks and construction of new road networks.

References

Adegbite, T. A., Azeez, B. A. (2021), Exploringroad tax in cushioning the effects of downplaying revenue generation in south western states, Nigeria. *Nigerian Journal of Accounting and Finance*, 13(2), 140-158.

Adegboyega, A. (2019). Only three of Nigeria's 36 states can survive without federal allocation – BudgIT. Retrieved from https://www.premiumtimesng.com/news/top-news/359295-only-three-of-nigerias-36-states-can-survive-without-federal-allocation-budgit.html?tztc=1

Aduloju, B. (2023). Joint Tax Board says multiple taxation on highways are negatively affecting costs of goods. Retrieved from https://www.thecable.ng/jtb-multiple-taxation-on-highways-are-negatively-affecting-cost-of-goods

Afangide, U. (2023). Single interstate road sticker, haulage fee, will end multiple taxation – AKIRS Chairman. Retrieved from https://www.akirs.ak.gov.ng/news-detail/single-interstate-road-sticker-haulage-fee-will-end-multiple-taxation-akirs-chairman

Afangide, U. (2023). Single interstate road sticker, haulage fee, will end multiple taxation . Retrieved from https://www.akirs.ak.gov.ng/news-detail/single-interstate-road-sticker-haulage-fee-will-end-multiple-taxation-akirs-chairman

Akinadewo, A. (2023). Federal Road Safety Corps warns car owners, drivers over unregistered vehicles. Retrieved from https://guardian.ng/news/frsc-warns-car-owners-drivers-over-unregistered-vehicles/

Akintoye, A. (2015), Developing Theoretical and Conceptual Frameworks, EDMIC 2015 Research Workshop, OAU, Ile Ife, Nigeria. Retrieved from file:///C:/Users/sani/Downloads/ ecitydoc. com_akintola-akintoyedeveloping-theoretical-andconceptual.pdf

Aliyu, A. (2023). Nigeria accounts for 75% of 15.5m registered vehicles in West Africa. Retrieved from https://dailytrust.com/nigeria-accounts-for-75-of-15-5m-registered-vehicles-in-w-africa/

Altman, D. G., Bland, J. M. (1994). Quartiles, quintiles, centiles, and other quantiles. Statistics Notes, British Medical Journal 309(), 996

Amadi, N. (2022). Road Tax: The Road Not Taken in Nigerian Tax Reform. *International Review of Law and Jurisprudence*, 4 (3), 134-139.

Anaman, P. D., and Anyas, I. A. (2021). Taxation within the transport sector: a ride-hailer and sharing economy perspective. *Account and Financial Management Journal*, 6(10), 2470-2480

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Ardiyono, S. K., Parenrengi, N. P. A., Faturachman, F. (2018). How does toll road impact accessibilities, trades, and investments in short term? A case study of Cipali toll road in West Java, Indonesia. Journal of Infrastructure, Policy and Development, 2(2), 1-22.

Atoyebi, O. M. (2023). Analyzing the impact of road taxes in Nigeria. Retrieved from https://omaplex.com.ng/analysing-the-impact-of-road-taxation-in-nigeria/

Bromley, D.W. (1990), The ideology of efficiency: searching for a theory of policy analysis. *Journal of Environmental Economics and Management*, 19(1), 86-107.

Central Bank of Nigeria (2003). Highway maintenance in Nigeria: lessons from other countries. Research Department Occasional Paper 27. Retrieved from https://www.cbn.gov.ng/out/publications/reports/rd/2003/occasional%20paper%20no.%2027.pdf

Chilunjika, A., Uwizeyimana, D. E., Chilunjika, S. R. T. (2023). Road tolling and domestic revenue mobilisation in Zimbabwe. *International Journal of Economics and Financial Issues*, 13(5), 67-75.

Creightney, C. (2021). Road user taxation in selected OECD Countries' Sub–Saharan Africa Transport Policy Program, The World Bank and Economic Commission for Africa, SSATP Working Paper No 3. Retrieved from https://regulationbodyofknowledge.org/wp-content/uploads/2013/03/Creightney_Road_User_Taxation.pdf

Davide, D., Alberini, A., Linn, J. (2017). Charging drivers by the Pound: the effects of the UK vehicle tax system. Resources for the Future Report. Retrieved from https://media.rff.org/documents/RFF-Rpt-Charging20Drivers.pdf

Dorfman, R. (1976), Forty years of cost-benefit analysis. Harvard Institute of Economic Research, Cambridge, MA, Discussion Paper No. 498.

Driver and Vehicle Licensing Agency (2023), Rates of vehicle tax for cars, motorcycles, light goods vehicles and private light goods vehicles. Retrieved from https://assets.publishing. service.gov.uk/media/6421b9a42fa8480013ec0c1e/v149-rates-of-vehicle-tax-for-cars-motorcycles-light-goods-vehicles-and-private-light-goods-vehicles.pdf

Elaigwu, J. I. (2024). The Federal Republic of Nigeria. Retrieved from http://www.forumfed.org/libdocs/Global_Dialogue/Book_2/BK2-C08-ng-Elaigwu-en.htm

European Commission (2002). Study on vehicle taxation in the Member states of the European Union Final report. Retrieved from https://taxation-customs.ec.europa.eu/system/files/2016-09/vehicle_tax_study_15-02-2002.pdf

Fulton, S., Krainovich-Miller, B. (2010), Gathering and Appraising the Literature. In LoBiondo-Wood G, Haber J (Eds) Nursing Research: Methods and Critical Appraisal for Evidence Based Practice. (Seventh Edition. Mosby Elsevier,Missouri, 2010, 56 – 84).

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Goldman, T., Corbett, S., Wachs, M. (2001). Local Option Transportation Taxes in the United States (Part One: "Issues and Trends")

Griffiths, H. (2022). Fuel duty and road tax: How to replace £35 Billion a year of lost revenue. Retrieved from https://www.carwow.co.uk/blog/how-to-replace-fuel-duty-and-road-tax#gref

https://punchng.com/no-going-back-on-road-haulage-taxes-ogun/

Jaggi, S. (2024), *Descriptive Statistics and Exploratory Data Analysis.* India: Indian Agricultural Statistics Research Institute. Retrieved from file:///C:/Users/user/Favorites/Downloads/descriptive-statistics-and-exploratory.pdf

Jia, J., Li, J., Gao, K. (2019). Brief discussion on the changes of tax system since China's reform and opening up (1978–2018). *American Journal of Management Science and Engineering*, 4(2).

Kamruzzaman, M. H., Mizunoya, T. (2021). Quantitative analysis of optimum corrective fuel tax for road vehicles in Bangladesh: achieving the greenhouse gas reduction goal. *Asia-Pacific Journal of Regional Science*, 5(), 91–124.

Kivunja, C. (2018). Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International Journal of Higher Education*, 7(6), 2081, 44-53.

Majeed, B. (2021). FIRS mulls road tax law to increase revenue generation. Retrieved from https://www.premiumtimesng.com/news/top-news/479986-firs-mulls-road-tax-law-to-increase-revenue-generation.html?tztc=1

Marewa, Y. B., Lumentut, L., Gandi, M. (2023). The effectiveness of motor vehicle tax contribution on regional original income. Retrieved from file:///C:/Users/user/Favorites/Downloads/125984067.pdf

Martin, I. M. (2022). Of road Taxation in Nigeria. Retrieved from https://www.businessamlive.com/of-road-taxation-in-nigeria/

McLure, C. E., Neumark, F., Cox, M. S. (2024). McLure, C. E., Cox, M. S., Neumark, F. (2020). Taxation. Encyclopedia Britannica. Retrieved from https://www.britannica.com/money/topic/taxation

Ministry of Transport Malaysia (2024). Road taxes. Retrieved from https://www.mot.gov.my /en/land/operators/road-taxes

Nair, V., Warwick, R. (2021). Better-designed taxes on motoring can make African countries cleaner, safer and more productive. Retrieved from https://www.taxdev .org/news-events/better-designed-taxes-motoring-can-make-african-countries-cleaner-safer-and-more

National Infrastructure Concession Regulatory Commission (2017). 135,000km road network in Nigeria un-tarred- ICRC. Retrieved from https://www.icrc.gov.ng/135000km-road-network-nigeria-un-tarred-icrc/

National University United States of America (2024). Research Process: what is a gap in the literature? Retrieved from https://resources.nu.edu/researchprocess/literaturegap

Published by:
Training & Research Institute
JERAMBA ILMU SUKSES

News Agency of Nigeria (2022). Ondo revenue agency begins road tax enforcement. Retrieved from https://gazettengr.com/ondo-revenue-agency-begins-road-tax-enforcement/

Office of Highway Policy (2001). Highway Taxes and Fees How They Are Collected and Distributed. Retrieved from https://rosap.ntl.bts.gov/view/dot/16526

Ojeaga, P., Odejimi, D. (2015). Electoral Violence and Nigeria Economic Prospects: A Glimpse of 2015 Elections. *Munich Personal RePEc Archive.* Paper No. 71045. Online at https://mpra.ub.uni-muenchen.de/71045/

Okauru, I. O (2012). A comprehensive tax history of Nigeria. Safari Books Ltd, lle Ori Detu, Ibadan.

Olokor, F. (2023). FG to end multiple taxation on roads. Retrieved from https://punchng .com/fg-to-end-multiple-taxation-on-roads/

Oluwole, D. (2022). Why are Nigerian states not financially independent? https://www.stears.co/article/why-are-nigerian-states-not-financially-independent/

Organization for Economic Cooperation and Development (2022). Revenue statistics 2021 the initial impact of COVID- 19 on OECD tax revenues. Retrieved from https://read.oecd-ilibrary.org/taxation/revenue-statistics-2021_6e87f932-en#page3

Organization for Economic Cooperation and Development (2024). Revenue Statistics 2023: Tax Revenue Buoyancy in OECD Countries. Retrieved from https://www.oecd-ilibrary.org/ sites/9d0453d5-en/index.html?itemId=/content/publication/9d0453d5-en

Organization for Economic Cooperation and Development (2024). Revenue Statistics in Africa 2023. Retrieved from https://read.oecd-ilibrary.org/taxation/revenue-statistics-in-africa-2023_15bc5bc6-en-fr

Pandey, K. (2021). Impact of road tolls on transportation and Indian economy. *International Advanced Research Journal in Science, Engineering and Technology*, 8(10), 89-92.

Patton, M. Q. (1987). Qualitative Research Evaluation Methods. Thousand Oaks, CA: Sage Publishers.

Popoola, N. (2023). o going back on road, haulage taxes – Ogun. Retrieved from https://punchng.com/no-going-back-on-road-haulage-taxes-ogun/

Purohit, M. C., Purohit, V. K. (2010). Road User Taxes in India Issues in Tax Policy and Governance (Study Sponsored by Planning Commission, Government of India). Retrieved from https://www.yumpu.com/en/document/view/6665947/final-report-road-user-taxes-in-india-of-planning-commission

Safian, S. S. S., Hamzah, H. Z. (2019). Consumers' Willingness To Pay (WTP) of Special Tax For Non-Green Vehicles Towards Environmental Performance in Malaysia. *Journal of Tourism, Hospitality and Environment Management*, 4(15), 66-77.

Taxes and Levies Act (1998). Taxes and Levies (Approved List for Collection) Act No. 1998. Retrieved from https://www.firs.gov.ng/wp-content/uploads/2021/01/TAXES_AND_LEVIES.pdf

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The Nigerian Constitution (1999). Constitution of the Federal Republic of Nigeria 1999. Retrieved from https://www.wipo.int/edocs/lexdocs/laws/en/ng/ng014en.pdf

The Punch (2023). Nigeria's road infrastructure remains decrepit. Retrieved from https://punchng.com/nigerias-road-infrastructure-remains-decrepit/

Torjman, S. (2005), What is policy? The Caledon Institute of social policy. Retrieved from file:///F:/J.%20ARTICLE/Article%202/Torjman%202005%20-%20Policy.pdf.

United States Centre for Disease Control and Prevention (2015), Definition of policy. Retrieved from file:///F:/J.%20ARTICLE/Article%202/Policy%20definition.pdf

United States Centre for Disease Control and Prevention (2023), https://www.cdc.gov/evaluation/index.htm

United States National Constitutional Centre (2023). Benjamin Franklin's last great quote and the Constitution. Retrieved from https://constitutioncenter.org/blog/benjamin-franklins-last-great-quote-and-the-constitution

van Rensburg, J., Krygsman, S. (2020). Funding for roads in South Africa: Understanding the principles of fair and efficient road user charges. Transportation Research Procedia 48 (2020) 1835–1847.

Willis, R. (2021). A brief history of taxation. Retrieved from https://www.accountancyage.com/2021/01/26/a-brief-history-of-taxation/

World Population Review (2024). Road Network Size by Country 2024. Retrieved from https://worldpopulationreview.com/country-rankings/road-network-size-by-country

World Population Review (2024). Road Quality by Country 2024. Retrieved from https://worldpopulationreview.com/country-rankings/road-quality-by-country

Yang, M., Bento, P., Akbar, A. (2019), Does CSR Influence Firm Performance Indicators? Evidence from Chinese Pharmaceutical Enterprises, Sustainability, 11(5656), 1-18.

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