



Fiscal Federalism and Road Infrastructural Development in Nigeria’s Fourth Republic (2007-2019)

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Abstract. Nigeria is one of the federal states in the world where fiscal federalism shapes financial relations among the federating units. Even though federalism was not solely adopted for provision of infrastructure in Nigeria, effective practice of fiscal federalism ensures infrastructural development in a federal state. However, reverse has been the case in the country. Thus, this study examined fiscal federalism and infrastructural development in Nigeria’s fourth republic. The research design employed for the study was triangulation or mixed methods design. The population of the study was Anambra, Gombe, Kano, Kwara, Lagos and Rivers states, while Gonzalez’s (2008) sample size formula was used to determine the sample size. Thus, 40 respondents were selected from each state. Using purposeful sampling method, the study collected data through questionnaire triangulated with unstructured interviews. Consequently, the data collected was analysed and test of hypotheses was done with multiple regressions using the Statistical Package for the Social Sciences (SPSS) software 3rd edition. The study found that fiscal federalism has not led to the improvement of road infrastructure in Nigeria. The test of hypothesis showed a coefficient of regression $R=0.972$ and $R^2=0.945$. The F-statistics, which was $F=3.255$ was not significant at 0.05 level. The study also found that with improved fiscal federalism, Nigeria will experience infrastructural development. Hypothesis test showed a coefficient of regression of $R=0.974$ and $R^2=0.948$. The F-statistics, which was $F=32.468$ was significant at $p=0.05$. Thus, the study recommended that Nigeria should adapt fiscal federalism practice in the United States in which other federating units would not need to depend on the federal level for their infrastructure development. All Federating units should begin to develop innovative ways of improving internally generated revenue so as to improve provision of infrastructure within their domain.

Keywords: Federalism, Fiscal federalism, infrastructural development, road, federating units

1. Introduction

Federalism is a political system practiced by forty percent of peoples in the world (Anderson, 2010). It is a system of government being practiced by democracies with large territories, those with large population and countries with diverse nationalities (ethnic groups) (Jacob and Akintola, 2012). It is no wonder that countries like the United States (US), Nigeria, Australia, Switzerland, just to mention but few, practice federalism. Even though each of these countries operates federalism with differing configurations, the system allows for power-sharing. It flourishes under an institutional framework in two dimensions that allow intergovernmental relations among the federating units.

Noteworthy is to state that generally federalism consists of at least two federating units: a central and other federating units (Auclair, 2005). It is essentially about system of government which functions with many structures, rather than a single structure in the governance of the state (Fadeyibi and Oyedjeji, 2006). This is federalism is practiced in different forms; there are fiscal, political and administrative federalism. While there are not so much challenges with political and administrative federalism, fiscal federalism, which has to do with allocation of income and how expenditure is made, is bedevilled with a lot of challenges.

Fiscal federalism is a constitutional arrangement where income and expenditure functions of the state, which is also referred to fiscal responsibilities, are divided among the federating units (Akindele, 2002). It becomes imperative in every federal state because it focuses on the importance of improving the

functionality of the public sector in the provision of public good and services through a system that ensures a proper arrangement of fiscal instruments that are well matched with governmental functions among the federating units (Wheare, 1944 as cited in Sharma, 2005). It defines both the vertical and horizontal fiscal relations among the federating units and brings about infrastructural development in the state.

It is worth mentioning to state that development of infrastructure is the provision of basic amenities so as to stimulate economic growth and improve the standard of living of the citizenry in a political system. Even though attaining optimum infrastructural development is challenging, it is the desire of every political system to develop infrastructure for enhanced standard of living for its people. This is why most developed countries have undergone years of serious infrastructural development that have helped to improve the development of that region of the world.

However, most African countries are still grappling with infrastructure development and this is largely as a result of the way governmental activities are structured in the continent in terms how political powers are matched with revenue allocation. This is especially the case in Nigeria, proper approach to allocating revenue federally generated has been a challenging issue. The various challenges associated with revenue allocation to federating units as Nigeria practices fiscal federalism is the bane of infrastructure development in the country. This does not only affect the provision of infrastructure in general but also the provision of road infrastructure in particular.

The road network in Nigeria, for instance, is about 195,000 km part of which about 32,000 km are termed federal roads while 31,000km are generally referred to as state roads (Oxford Business Group, 2021). Unfortunate, only about 60,000km of these roads are tiled. Even the tiled roads, most of them are in very poor condition, not motorable and are filled with potholes as a result of inadequate investment on them and lack of prompt maintenance. Even though the Federal Government, in February 2021 year released N34billion for the construction of 377 some of these roads to increase the number of road infrastructure in Nigeria, analyses have indicated that Nigeria needs to invest \$3trillion to bridge the country's infrastructural deficit over the next 30 years which will cost about \$12.4 billion annually (Ogwude, 2016).

Against this background, therefore, this study attempts to examine the impact of fiscal federalism on infrastructure development in Nigeria. The study focuses on looking at how the operation of fiscal federalism has impacted on provision of road across the country. In order to achieve this, the study is divided into seven after this introduction. The first is the statement of the problem while the second is theoretical framework where the theory that guides the study is analysed and applied. The third is the literature review while the fourth section is the methodology where how the data was sourced and analysed is discussed. The fifth section is the data presentation and analysis. The sixth section deals with conclusion where the discussion of finding is done. The final section is the recommendations.

1.1 Statement of the Problem

The level of the development of road infrastructure determines a political system's success in its efforts to diversify production, expand trade, manage population growth, reduce poverty, or improve the conditions of the environment. Well planned road network helps any country to increase productivity especially as it enhances the efforts to lower production costs in the agricultural sector of the economy. However, there is a major disconnection in Nigeria between where production activities take place and where products are finally consumed because of lack of good road infrastructure that will bridge the gap.

Road infrastructure, which serves as a form of social overhead capital in any political system, is non-negligible because when it is neglected its to the detriment of the economy in terms of reduction and/or stagnation of economic growth. The cost of lack of adequate road network and poor management of the existing ones is equally high as the United Nations Development Programme (UNDP, 2015 as cited in Agbigbe, 2016) described road networks and transportation infrastructural systems in Nigeria as one of the poorest and deadliest in the world.

As a culturally diverse and territorially large political system, federalism has been found to be solution to the above challenge. It is a development paradigm for good governance, especially in heterogeneous countries, which helps in the improvement of service delivery, assurance of decision-making at the most appropriate level, protection against the concentration of power and resources into a governance unit, and in the creation of opportunity for democratic participation for more citizenry (Bulmer, 2017). However, the extent to which this has been the case

in Nigeria is opened to a lot of controversy. Consequently, this study is to examine the impact of fiscal federalism and road infrastructural development in Nigeria's fourth republic. In order to achieve this objective, the following hypotheses, stated in the null form, are put forward:

Hypothesis One (H1): There is no significant relationship between fiscal federalism and road infrastructural development in Nigeria.

Hypothesis Two (H2): There is no significant relationship between fiscal federalism and service delivery in Nigeria.

Hypothesis Three (H3): There is no significant relationship between fiscal federalism and infrastructure development in Nigeria.

1.2 Theoretical Framework

The theory adopted as the theoretical framework is structural-functional theory. The popular proponents of the theory are Radcliffe-Brown, Robert Merton, Marion Levy and Talcott Parson (McLean and McMillan, 2003). They provided the background that led to the formulation and development of the theory (Gaubu, 2003). Originally, the theory was formulated as ethnography tool for overcoming the limitations of former approaches used in the understanding of change in the society (Potts, Vella, Dale and Sipe, 2014). However, Gabriel Almond and his associates developed structural functionalism as a tool for analyzing political issues (Gaubu, 2003).

Structural functionalism is also used to analyse different components of the society that have to do with their interconnectivity, integration and in its original formulation of the theory defines the social functions that many parts of social system perform in order to make the society, as a system, function effectively as a whole (Mohammed and Ukpog, 2011). According to Mohammed and Ukpog (2011), these functions are in two categories: manifest and latent in which the former are intended functions performed by different structures of the social system while the latter are functions that come about indirectly.

In Political Science, when Gabriel Almond and his friends first applied the theory to political studies, they identified four main characteristics every political system have that shape their functions. The four characteristics are that political systems across the world have political structures, these structures perform same functions albeit with varying frequencies, the structures functions are multiple in nature and all political systems across the globe are 'mixed' in the aspect of culture, that is, the political

systems are characterized by features that are both modern and traditional in nature (Gaubu, 2003:95-96).

With system analysis of David Easton, Almond places some functions as input and output (cited in Enemuo, 1999). Input functions are categorized as articulation and aggregation of interest while output functions are rule making, application and adjudication (Enemuo, 1999). Rule making, application and adjudication correspond with the conventional governmental functions of the legislature, the executive and the judiciary respectively (Gaubu, 2003). Almond, however, was interested in input functions performed by structures or institutions that are non-governmental.

However, according to Enemuo (1999), structural functionalism has been faulted on three grounds. It is believed that it is uneasy to differentiate between those aims that are deliberate and those that must be consciously achieved for the continuation of the political system. Secondly, what is identified as the functions of a political structure is subjective to the analyst. Thus, what Gabriel Almond identified as functions of political structures might be more or less. Third, the approach has been identified as western in nature and it is painted in western political culture.

Even though the theory is not perfect, it is still useful in explaining some issues relating to this study. As stated through one of the tenets structural functionalism, like every political system, Nigerian federalism has political structures. Nigeria's federalism is made up of political structures like the federal, states and local governments. These structures functions in different capacities as different parts that makes the whole system work properly. Noteworthy is to state that the various tiers of government mentioned above have responsibilities which they perform for the whole federation to be effectively administered with development been prioritized. However, the over concentration of functions in the central government have affected the proper functioning of other structures as the central government gulped more funds in terms of revenue shared in the federation and sources of generating revenue by government of the federation. These have been the problem of Nigerian federalism that often leads to the call for restructuring of the federal architecture by different groups across the country.

However, as stated by the proponents of structural functionalism, these functions are indispensable but when they are not properly performed by the political

structures; the political system would fall apart. Thus, the federal system in Nigeria is falling in its fiscal aspect. Fiscal federalism in Nigeria is ordinarily 'falling apart' leading to inadequate provision of infrastructure, especially road infrastructure, by the federating units. This has led to infrastructure deficit as identified earlier in this study.

2. Literature Review

Fiscal federalism is one of the classifications or types of federalism. It is a by-product of federalism, and it has to do with the definition of how governmental functions are divided and intergovernmental financial relations between tiers of government are practiced. It is entrenched in a political system referred to as federalism. Kapucu (2020) argues that it is the financial relations between levels of government in a federation which happens to be the brain-child German-American economist, Richard Musgrave, in 1959.

Arowolo (2011) contends that federalism, in general, is a governance framework that is used to describe the allocation of functions to different tiers of government with appropriate fiscal instruments for performing the functions. Noticeable in the affirmation of Arowolo (2011) is the fact that through fiscal federalism, functions are assigned to the federating units. However, these functions are commensurate with the amount of funds each federating unit has access to.

Sharma (2005) states that fiscal federalism is a form of guiding principle that helps in how financial relations between the central and other regional government are designed, while fiscal decentralization defines the process through which the principles are applied. The new dimension to the definition of fiscal federalism introduced by Sharma (2005) is application of fiscal federalism, which is fiscal decentralisation. This means that without fiscal decentralisation, fiscal federalism might be without any effect.

To Ozo-Eson (2005), fiscal federalism explains how functions and finances in the public sector are divided. Like Arowolo (2011), the argument of Ozo-Eson states that fiscal federalism is both about division of functions and funds/public revenue among the federating units. This is what Ewetan (2012) alludes to when he submitted that each tier of governance within the political system will be saddled with the responsibility of providing services whose benefits go to the people within its boundaries, and so, each of these governance jurisdiction should

effectively utilize only sources of finance it can internalize its costs.

The discourse above gives credence to the postulation of Wheare (1963) that the theory of fiscal federalism is based on sharing of governmental powers, decentralization of finances and financial autonomy for the federating units. This is why it is posited that fiscal federalism is concerned and characterized with transfers as well as grants of financial powers by which the central government shares its revenues with other federating units. This is generally referred to allocation of revenues in a federal state. The procedure for this is based on a number of factors which may either or be under the control of the stakeholders.

Jacob and Akintola (2012) thus argue that undoubtedly the general principles of fiscal federalism appear to have informed every political system's attempt to shape its intergovernmental fiscal relations. However, they submit that countries apply different principles in the practice of fiscal federalism and this is usually determined by a combination of political, socio-cultural and historical. They conclude that fiscal federalism has great impact on economic development of a federal state.

Noteworthy, therefore, is to state that the essence of fiscal federalism is national development. It can be deduced from the foregoing submissions that no matter how the fiscal arrangement in any federal state is operationalized, the endpoint is national development. This is what Khemani (2001) alludes to when he talks of effective delivery of public services in a federal state. This is what Jacob and Akintola (2012) are driving at when they argue that fiscal federalism has great impact on economic development. In fact, Jacob and Akintola (2012) contend that through proper fiscal arrangements between/among the levels of government in a federation, each of the levels of government will be developed economically, and the lives of the citizens will be transformed. Based on this, it goes without saying that there is a relationship between fiscal federalism and national development.

It is noteworthy to state that a development become national when it is comprehensive and broad in scope. Tella, Doho and Bapeto (2014) argues that it is that kind of development that encompasses all aspects of what the development of a nation entails as it is characterised by social, political, economic, among other factors of growth. No development can be deemed 'national' unless in totality it has positive impact on all citizens as well as on forces and

ingredient of growth, human resources, physical and skill that is available in a political system. This makes national development not only revolutionary and dynamic but it is also quantitative and qualitative in nature.

To Alanana (2006), national development is the creation of qualitative change that leads to the emergence of new non-economic and economic structures. It leads to the increase the quality of life of the citizenry. Jhingan (2007) argues that it growth in addition with change. It is related to changes that positively impact on the economic wants, incentives, productivity and knowledge, goods, institutions, or the movement of the entire social system in an upward trend. Jhingan (2007) contends that there is national development when social amenities are provided for the individuals, which focus on the alleviation of poverty of the masses by the state.

Gboyega (2003) contends that national development is an idea that encapsulates all efforts to improve the conditions of living of people in all ramifications. It implies the characteristics that define material well-being of all citizens in a sustainable way such that today's national consumption does not endanger the future. It also entails the reduction of poverty and inequality of access to the good things of life. It seeks the improvement of personal physical security, expansion of life chances and livelihoods of people.

Noteworthy, therefore, is to state that the arguments above prove that national development is not only about the economy but also involves issues on social and political matters. It permeates all aspects of human life. National development is not just a matter of getting the citizens to have more money or helping the poor in the society to be financially empowered. It also includes the enhancement of the standard of living of the citizenry through the provision of social amenities. This will ensure increased productivity of the citizenry and it will result into increased income to them. In the long run, it will lead to an improved welfare that is characterized by enviable standard of living of the citizenry, and in turn, the nation will be better for it. This is why infrastructural development is essential for national development.

Yorumichi (2019) maintains that infrastructure is that basic organizational and physical structures every society needs to function effectively. It is through the availability of these basic structures the society gets to function optimally. This is why Frederick (2020) posits that infrastructure covers both the physical facilities and other systems that eventually serve the public at large. Frederick (2020) argues, like

Yorumichi (2019), that infrastructures are the basic services and systems that a country needs so as to function effectively. These scholars maintain that these amenities are also needed for improved standard of living for the people.

Narmania and Chokheli (2018) submit that public infrastructures are structures, services, facilities, equipment and institutions that are fundamental to the economy and standard of living of the people of a nation. These infrastructures comprise of transport infrastructure, which include bridges, roads, bicycle paths, sidewalks, airports and rail services and wet infrastructure, which includes flood management, water treatment, water resource management, water supply, and coastal restoration. Narmania and Chokheli (2018) contend that these infrastructures also comprise of energy infrastructure, which comprises power stations, grids, wind turbines and solar panels as well as information infrastructure that are basic communication and networks services.

Torrisi (2009), while distinguishing productive from unproductive infrastructure, he presents Jochimsen (1966) argument on infrastructure as the total of institutional, material and personal facilities which are available to the economic agents and contribute to the realization of the complete integration of economic activities. Torrisi (2009), therefore, argues that material infrastructure is the totality of the earning assets, circulating capital and equipment in an economy that serves transport service, energy provision and telecommunications.

Noteworthy is to state that there are two broad perspectives on public infrastructure. There are those who believe public infrastructures do not amount to public good. There are those who believe it cannot be called public infrastructure if it is not a public good. Kasper (2015), for instance, belong to the former group of school of thought while Narmania and Chokheli (2018), Torrisi (2009), Henckel and McKibbin (2015) belong to the latter school of thought. However, they all agree that there should be infrastructural development.

However, most African countries, including Nigeria, are still grappling with infrastructure development and this is largely as a result of the way governmental activities are structured in the continent in terms powers and revenue allocation. Adeleye (2020), for instance, submits that in Nigeria, operation of fiscal federalism put the federal government in charge of allocation of federally collected revenue and it uses this at the expenses of other federating units.

Ekanade (2011) brings this to the fore as submits that his study indicates that for Nigeria to successfully overcome the challenges associated with infrastructural development, it has to give importance attention to principles of autonomy of the federating units, prevalence of civic culture, financial decentralisation and reliance of relations among the federating units on mutual convenience rather than on statuses.

In his study on the subject, Babalola (2015) discovered that fiscal federalism in the country has neither promoted economic nor national development due to weak intergovernmental fiscal system and non-compliance with principles that make fiscal federalism strong in every federation. In the same perspective, Ewetan (2012) and Alabi (2010) conclude that there is no correlation between revenue sources of federating units and their expenditure responsibilities given to them by the constitution. They believe that the centralization of finances and politically motivated methods of revenue allocation have contributed negatively to socio-economic and political underdevelopment in Nigeria. these scholars maintain that the defect identified with fiscal federalism in Nigeria is the major reason for the challenges inherent in infrastructural development in the country.

What is noteworthy is that fiscal federalism has not enhanced infrastructural development in Nigeria because some fundamental issues on fiscal federalism are not taken care of. One of the fundamental fiscal issues is the promulgation of fiscal law that is favourable to the federal government at the expense of other federating units. This, as it has been pointed out in the studies, has not ensure valuable and enhancing intergovernmental fiscal relations among the federating units. This brings to the fore fundamental of the decentralization of fiscal responsibilities to all federating units guided by the principles of fiscal federalism leading to efficient and transparent infrastructural development in the country.

3. Methodology

This study adopted mixed methods design which is often interchangeably called multiple methods or triangulation design. The survey design was triangulated with some interviews made in the field. The use of this design helped broaden the scope of the study in showing the interconnectivity that exist between fiscal federalism and infrastructural development in the country. However, the population of the study was a state in each geopolitical zone of

Nigeria. the targeted population, the target population was, therefore, Anambra State in the South East, Gombe in the North East, Kano in the North West, Kwara in the North Central, Lagos in the South West and Rivers State in the South-South. The population of each of the state selected in each geopolitical zone is provided in Table 1 below.

Table 1: Population of the Targeted States (18 to 75 years)

States	Male	Female	Total
Anambra	1,005,945	1,044,247	2,050,192
Gombe	925,765	978,342	1,904,107
Kano	2,954,167	3,067,879	6,022,046
Kwara	918,010	943,868	1,861,878
Lagos	2,975,140	2,610,047	5,585,187
Rivers	3,432,177	2,987,245	6,419,422
Total	12,211,204	11,631,628	23,842,832

Source: Estimate from the statistics derived from the National Population Commission (2018) projections from 2006 National Population Census of Nigeria.

The target population of this study, therefore, was the adult citizens of Nigeria who are constitutionally eligible to vote and be voted for. The above was adopted since the entire country cannot be studied altogether.

The sample size of the study was, however, determined by Gonzalez’s (2008) sample size formula:

$$n = N/1 + [N (e^2)],$$

Where:

n = sample size,

N = total population of the area being investigated, and

e = percentage margin error.

Adopting 5 percent limit of tolerance level (margin error level), it is anticipated that the study will be conducted applying a normal approximation with confidence level of 95 per cent.

On the basis of this calculation, the target population size of the six purposively selected states which is 23,842,832 produced a sample size of n = 240 people.

$$6=23,842,832/1+ [23,842,832(5^*2)]$$

$$6=23,842,832/1+ [23,842,832(10)]$$

$$=240$$

$$240/6 = 40 \text{ i.e } 40 \text{ respondents from each state}$$

Hence, sample population size for this study was 240 respondents. This figure was thereafter distributed among the understudied six states in Nigeria on equality basis. Thus, each state had 40 respondents each. The sampling technique employed in this study to achieve the aims of the study is the Stratified Random Sampling Method (SRSM). This is done by dividing the targeted population in the selected states

into sub-groups because of the large number of people in the areas chosen.

For personal interviews snowballing method which makes one informant guide the researcher to another informant was adopted in identifying and contacting the appropriate respondents from the selected local government areas. For questionnaire administration, random sampling method, which gives every element of the population equal chance of being selected in order to guarantee a high level of accuracy was applied as stated in the preceding paragraph.

For analysis of data derived from the field, the qualitative data collected through interviews was transcribed and analysed using content analysis approach. Descriptive statistics (simple percentage/frequency distribution) was used to analyse the quantitative data collected through the questionnaire while the statistical tool of analysis of multiple regressions, of multivariate inferential statistics, was also applied in testing the research hypotheses of the study, all using the Statistical Package for the Social Sciences (SPSS) software 3rd edition.

4. Data Presentation and Analysis

As stated earlier in the study, two hundred and forty (240) copies of questionnaire were administered in the field but two hundred and thirty-four (234) copies were returned.

Table 2: Rate of Return of Distributed Questionnaire

S/N	State	Questionnaire Distributed	Questionnaire Retrieved
1	Anambra	40	38
2	Gombe	40	39
3	Kano	40	38
4	Kwara	40	40
5	Lagos	40	40
6	Rivers	40	39
	Total	240	234

Source: Field survey, 2021.

The above shows the way questionnaires were shared in the states covered with the numbers retrieved in each state. In all a total of 98% of the questionnaire distributed were retrieved. This is a good premise for further analysis of data retrieved from the respondents. It should be noted that the three descriptive tables on the responses derived from the field from each questionnaire item is attached at appendix. However, the focus in the section is the test of hypotheses of the study and the interpretation of the results derived from the field.

It is noteworthy to state that the focus of this section is to validate or invalidate the hypotheses put forward earlier in the study. However, the questionnaire items for each of these hypotheses were used in testing the hypotheses. For instance, to test for hypothesis I (H_{01}), questionnaire items 1-5 were used while items 6-10 were utilized in testing for hypothesis II (H_{02}). In order to test for hypothesis III (H_{03}), items 11-15 was adopted. Multiple regression (ANOVA) was used in testing these hypotheses with a view to either accepting or rejecting them.

H₀₁: There is no significant relationship between fiscal federalism and road infrastructural development in Nigeria.

Table 3: Summary of the Regression and ANOVA test on the relationship between fiscal federalism and road infrastructural development in Nigeria.

R = .972 ^a						
R ² = .945						
R ² adj = .943						
Std Error = 1.222						
Model		Sum of Squares	Df	Mean Squares	F	sig
1	Regression	3.103	1	3.103	3.255	.072 ^b
	Residual	225.853	236	.853		
	Total	228.957	239			

Source: SPSS Processing of Field Data, December 2021

Interpretation and Decision Rule: Table 3 shows the statistical result of the test of the first hypothesis (H_{01}), which stated that “there is no significant relationship between fiscal federalism and road infrastructural development in Nigeria”. From Table 3, the result of the test showed a coefficient of regression $R=.972$ and $R^2=.945$. The implication of this coefficient of regression is that there was no strong direct association (94.5%) between fiscal federalism and rate of road infrastructural development in Nigeria. The F-statistics, which is $F=3.255$ was not significant at 0.05 level. This means that the rate of road infrastructure development in Nigeria is not related to the fiscal federalism practiced in the country. Therefore, the postulated null hypothesis was accepted. This implies that fiscal federalism in Nigeria has not led to the improvement of roads infrastructure in the country. The practice of fiscal federalism has not led to infrastructural development across the country .

H₀₂: There is no significant relationship between fiscal federalism and service delivery in Nigeria.

Table 4: Summary of the Regression and ANOVA tests of relationship between fiscal federalism and service delivery in Nigeria.

R = .972 ^a					
R ² = .945					
R ² adj = .944					
Std Error =1.197					
Model	Sum of square Squares	Df	Mean Squares	F	Sig
1 Regression	882	1	882	852	.000 ^b
Residual	63.789	66	267		
Total	68.671	67			

Source: SPSS Processing of Field Data, December 2021

Interpretation and Decision Rule: Table 4 shows the statistical result of the test of the second hypothesis (H_{02}), which stated that “there is no significant relationship between fiscal federalism and service delivery in Nigeria”. From Table 8, the result of the test showed a correlation coefficient of $R=.972$ and $R^2=.945$. The implication of this coefficient of regression is that there was no strong direct association (94.5%) between fiscal federalism and service delivery in Nigeria. The F-statistic, which is $F=3.852$ was not significant at 0.05 level. This means that the relationship between fiscal federalism and service delivery in Nigeria not significant at 0.05 level. Therefore, based on this outcome, the postulated null hypothesis was accepted. The implication of the statistical results is that fiscal federalism has not improved service delivery in Nigeria. There is no positive nexus between fiscal federalism and service delivery by each level of government in the country. Other factors may, however, be strongly involved.

H₀₃: There is no significant relationship between fiscal federalism and infrastructure development in Nigeria

Table 5: Summary of the ANOVA test of the relationship between fiscal federalism and infrastructure development in Nigeria.

R = .974 ^a					
R ² = .948					
R ² adj = .946					
Std Error =1.825					
Model	Sum of square Squares	Df	Mean Squares	F	Sig
1 Regression	6.251	1	6.251	2.468	.000 ^b
Residual	98.607	66	089		
Total	34.858	67			

Source: SPSS Processing of Field Data, December 2021

Interpretation and Decision Rule: From Table 5, the result of the test shows a coefficient of regression of $R=.974$ and $R^2=.948$ indicating 94.8%. The implication of this coefficient of regression is that there was a strong direct association (94.8%) between fiscal federalism and infrastructural development.

The F- statistics, which is $F = 32.468$ and is significant at $p=0.05$. This indicated that there was a significant relationship between fiscal federalism and infrastructural development. Based on this result, the null hypothesis was rejected. This means that there is a significant relationship between fiscal federalism and infrastructure development in Nigeria.

What the results from the statistical analysis indicate is that with improved fiscal federalism, infrastructural development will be experienced in the country. Thus, the impact fiscal federalism, where revenues are allocated accordingly, ought to be felt on the rate of infrastructural development in Nigeria.

5. Conclusion

The findings of this study have indicated that fiscal federalism in Nigeria has not led to the improvement of roads infrastructure in the country. The practice of fiscal federalism has not led to infrastructural development across the country. This confirms what Professor Banji Akintoye (Oral Interview, 2021) specifically mentioned when he was responding to this issue. He submitted that the erroneous arrangement of the country's federal system by the military brought about the uneven development in infrastructure across the country, a point that corroborates the argument of Ozo-Eson (2005) on the division of public sector functions and finances among different tiers of government. This is also in line with the position of Ewetan (2012) that each federating unit should provide essential services that will benefit the people within its geographical boundaries, and so, should make use of finance that it would be able to internalize its costs. It is disheartened to discover that the case of Nigeria is far away from this postulation. The system of fiscal federalism is supposed to lead to provision of infrastructure, but reverse is usually the case.

The findings of this study have indicated that fiscal federalism has not improved service delivery in Nigeria. The study has revealed that there is no positive relationship between fiscal federalism and service delivery by each level of government in the country. The study is to examine the effect of fiscal federalism on service delivery in the country. However, this study found that instead of improving service delivery, fiscal federalism has led to the contrary.

Otunba Deji Osibogun (Oral Interview, 2021) confirms the findings of this study when he posited that the poor state of service delivery in Nigeria by each level of government has made each household a kind of 'local government'. He submitted that each household now provides its security, water, light (in form of either generator or solar power) and road. These are the statutory functions of the local government administration. In the same vein, Alhaji Jafar Jafar (Oral Interview, 2021) argued that service delivery is 'zero' in Nigeria. He believed that no

level of government in the country is excepted. Looking at the state of infrastructure in the country, Alhaji Jafar Jafar argued that it is hardly to believe that there is government in Nigeria. However, Chief Magnus Wokocha (Oral Interview, 2021) was a little different as he believed that the paucity of fund at each level of government is the major reason why service delivery by government is poor in the country. He alluded to the fact that this is made worse with the impact of COVID-19 in the country.

This study also found that fiscal federalism has a great influence on infrastructure development in Nigeria. The investigation the study carried out indicated that there was a significant relationship between fiscal federalism and infrastructural development. This means that there is a significant relationship between fiscal federalism and infrastructure development in Nigeria. With improved fiscal federalism, the study found that infrastructural development will be experienced in the country. Thus, the study revealed that impact fiscal federalism, where revenues are allocated accordingly, will be felt on the rate of infrastructural development in Nigeria.

Pa Gabriel Ogunyemi (Oral Interview, 2021) however linked this with good leadership. He blamed poor infrastructure on poor leadership but not necessarily fiscal federalism or any system of government for that matter. He submitted that no matter the system of government, poor leadership cannot provide infrastructure development. The argument of Alhaji Mustapha Musa (Oral Interview, 2021) aligned with the findings of this study. Alhaji Musa submitted that Nigeria needs to get its fiscal federalism right before the citizenry will enjoy the dividends of democracy. He believed that the use to which funds are put in Nigeria is the main cause of poor state of infrastructure in the country. He argued that the funds that are available now are adequate to ensure infrastructural development in the country. However, one of the interviewees, Chief Magnu Wokocha (Oral Interview, 2021) stated that the meagre revenue coming to state from the federal government monthly are even underutilized for the provision of infrastructures as government at the lower level syphon them.

This further confirmed the argument of Ejeh and Ogbale (2014) that other federating units apart from the federal government get their revenues from sources that are more limited than that of the federal government. These include poll tax, property tax, licenses and permits, among others. These are supported with revenue from federally collected revenue from the centre. However, this is dependent

on the revenue sharing formula used to share what each tier of government is entitled to from the federally collected revenue.

6. Recommendations

The effective practice of fiscal federalism becomes imperative in Nigeria as a federal state because it focuses on the necessity for improving the performance of the public sector and service delivery to the people. This has been the focus of each of the federating units since the adoption of the system and in the fourth republic. However, this study found that there are various issues serving as hindrances to fiscal federalism in the efforts of the federating units providing infrastructure in the country. Therefore, based on conclusion of this study, the following recommendations are put forward:

- Nigeria should adapt fiscal federalism practice in the United States. Each of the federating units does not need to depend on the federal level for their infrastructure development. They should, therefore, abandon the practice in which they usually wait to receive federally collected revenue before they could make substantial plan on infrastructure development. All Federating units should begin to develop innovative ways of improving internally generated revenue so as to improve provision of infrastructure within their domain. States in the country should learn from Lagos State on internally generating revenue and stop depending on the Federal Government for financial survival.
- Revenue Mobilization Allocation and Fiscal Commission (RMAFC) should begin the process of reviewing the present revenue allocation formula. The current formula that gives the Federal Government the largest share and more than half of the federally generated revenue is neither favourable nor helpful to infrastructure development in Nigeria. The local government level should be given the highest share of the allocation.
- The National Assembly should amend Section 162 of the 1999 Constitution (as amended). Specifically, subsections 6, 7 and 8 of the Section of the Constitution should be amended to give autonomy to the local government. The State-local government joint account should be removed from the Constitution to improve development of infrastructure at the grassroots. It is only when this is guaranteed that the efforts of the Federal Government in making local government has its allocation directly

from the federal level can yield the result of provision of infrastructure at the grassroots.

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Appendix

Tables showing responses derived from the field on each of the three Questionnaire Items that guided the test of the Study's Hypotheses

Table 6: Impact of Fiscal Federalism on Road Infrastructural development in Nigeria

Question: What is the impact of fiscal federalism on road infrastructural development in Nigeria?

S/N	ISSUES	SA	A	UD	D	SD
1	Road Infrastructural development has been given a deserved attention by the Federal Government	9 (3.8%)	15 (6.4%)	16 (6.8%)	123 (52.6%)	71 (30.3%)
2	Lack of road infrastructure has great effect on Nigeria's federalism	105 (44.9%)	71 (30.3%)	40 (17.1%)	16 (6.8%)	2 (0.9%)
3	Ineffective application of fiscal federalism has affected road infrastructure in Nigeria	87 (37.2%)	124 (53.0%)	13 (5.6%)	10 (4.3%)	0 (0%)
4.	There is a relationship between the practice of fiscal federalism and the ability of the states in Nigeria to provide road infrastructure	80 (34.2%)	138 (59.0%)	12 (5.1%)	4 (1.7%)	0 (0%)
5.	The heterogeneous nature of Nigeria has impeded on the practice of fiscal federalism in Nigeria.	85 (36.3%)	119 (50.9%)	20 (8.5%)	9 (3.8%)	1 (0.4%)

Source: Field Survey, December 2021

Table 7: Fiscal Federalism and Service Delivery in Nigeria

Question: What is the effect of fiscal federalism on service delivery in Nigeria?

S/N	ISSUES	SA	A	UD	D	SD
6	The way issues on fiscal federalism and service delivery are handled in the country has affected national cohesion	82 (35%)	131 (56%)	11 (4.7%)	10 (4.3%)	0 (0%)
7	Service Delivery has led to political instability in Nigeria	67 (28.6%)	133 (56.8%)	26 (11.1%)	7 (3%)	1 (0.4%)
8	The operation of Fiscal Federalism in Nigeria has generally affected the country's economic development	108 (46.2%)	82 (35%)	28 (12%)	16 (6.8%)	0 (0%)
9	Service Delivery has increased the spate of political violence in Nigeria	70 (29.9%)	131 (56%)	23 (9.8%)	10 (4.3%)	0 (0%)
10	Fiscal Federalism and Service Delivery have amplified agitation in different parts of the country	80 (34.2%)	127 (54.3%)	19 (8.1%)	8 (3.4%)	0 (0%)

Source: Field Survey, December 2021

Table 8: Fiscal Federalism and National Development in Nigeria

Question: How has fiscal federalism improve on national development in Nigeria?

S/N	ISSUES	SA	A	UD	D	SD
11	Each level of government can only provide road infrastructure based on the financial resources available to it	98 (41.9%)	115 (49.1%)	16 (6.8%)	4 (1.7%)	1 (0.4%)
12	States in Nigeria are often handicapped when it comes to developmental projects and provision of road infrastructures that will benefit the people	104 (44.4%)	111 (47.4%)	8 (3.4%)	10 (4.3%)	1 (0.4%)
13	Improper operation of fiscal federalism has affected good governance which leads to poor road infrastructure in the country	143 (61.1%)	75 (32.1%)	6 (2.6%)	9 (3.8%)	1 (0.4%)
14	The Federal government has not properly utilized its fiscal power in relation to the provision of road infrastructure	119 (50.9%)	98 (41.9%)	9 (3.8%)	8 (3.4%)	0 (0%)
15	The practice of fiscal federalism in Nigeria has encouraged corruption in the infrastructure sub-sector	78 (33.3%)	117 (50%)	23 (9.8%)	15 (6.4%)	1 (0.4%)

Source: Field Survey, December 2021