Fiscal Federalism and Economic Growth Process in Nigeria

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Abstract
Nigeria as a nation operates a federal structure of government, federalism refers the existence in one country of more than one level of government, each with different expenditure responsibilities and taxing powers. The major aim of this study is to asses the impact of revenue allocation on economic growth in Nigeria.
Secondary data employed in this study were assembled from CBN statistics, National Bureau of statistics and federal ministry of Finance. OLS was used to estimate multiple regression model where GDP as dependent variable and independent variable were population growth rate, inflation rate, growth rate of share of federal government from the federal account, growth rate of state government from the federal account, growth rate of share of local government from the federal account. The results obtained from the regression shows that there exists a direct relationship between the revenue allocation formula as proxies by the share of federal, state and local government from the federation account and economic process in Nigeria. From the above result, it can therefore be concluded that policy to maintain macroeconomic stability by controlling the rate of inflation within reasonable limit is required to promote economic growth and development.
Key words: fiscal policy, economic growth, Nigeria, federalism

1.   Introduction

Nigeria as a nation operates a federal structure of government, federalism refers the existence in one country of more than one level of government, each with different expenditure responsibilities and taxing powers. This shows that fiscal federalism, a consequence of federalism, is all about the relationship among the different units of government with respect to the allocation of national revenue and the assignment of functions and tax powers to the constituent units. The existence of imbalance between functions and resource base makes it expedient for the higher level of government to transfer revenue to the lower level. This is referred to as 'efficiency transfers or balancing.

The sharing of funds from the federation account is one of the contentious and sensitive issues in the Nigeria polity this has remained a central element of inter fiscal relations. In Nigeria revenue allocation is taken as the distribution of nation revenue among the various tiers of government in federation in such away as to reflect the structure of fiscal federalism. This issue is so important that in some other countries it has become a national question (Mbaneforh, 1993, Emenuqa, 1993). For instance Kayode (1993) observed that a satisfactory solution to the question and its solution".

This shows that in any nation the stability as a political entity depends to a large extent on revenue location. A democratically elected government can be sustained if only there is an appropriate distribution of nation revenue among state governments themselves.

Hence, the importance since there is heterogeneity in the polity in such diverse areas as religion, culture and ethnicity. Thus is one most sensitive issues in Nigeria for more than three decades.

Federalism, therefore, is a system of distributing political powers in such a manner as to involve various interest groups in governance. In addition to ensuring an efficient management of the scarce resources, revenue allocation helps to cater for the peculiar needs of various interest groups.

1.1   Statement of the Problem

The return of democratic government is expected to lead to the practice of a more balanced system of fiscal federalism, more transparency, fiscal accountability and more devolution of powers to lower units of government and hence more fiscal decentralization. While a greater degree of decentralization would, no doubt, contribute to greater grassroots participation, generate more local development, increase efficiency and equity, create employment opportunities and promote poverty alleviation. It must not be done in such a way as to conflict with the national objective or unduly complicate it.

The change in the internal geographic structure of the nation as a result of strong and continuous agitation for state creation has led to distortion in the revenue allocation formula and this has weakened the fabrics of federalism. For example, 12 states were created out of four regions in 1967. In 1987, the number of state rose to 19 while local government rose to 300. By 1991, the number of state government had risen to 30 with 589 local governments and 1996, the number of state rose to 36 with 774 local governments. Till date we still have 36 states and 774 local governments. Given the associated rising cost of running federal system that is provision of secretariats, staff salaries and allowances, rental and buildings, provision of utilities and increasing outlays on maintenance and new projects, statutory allocations to state and local government together with internal revenues have become grossly inadequate. It is in the light of the above issues that there is the need to study the revenues allocation and its impact on the economic growth process in Nigeria. The issues of revenue allocation in Nigeria is a fundamental one that borders on promotion of national unity and rapid economic growth. It is however sad that despite continuous increase in revenue generation in Nigeria over the years, the expected impact on economic growth in Nigeria has not been realized. Hence the need to examine empirically whether revenue allocation formula adopted in the past has had any meaningful impact on the economic growth process in Nigeria.

1.2 Objectives of the Study

The major aim of this study is to assess the impact of revenue allocation on economic growth in Nigeria. This is important in view of the fact that there exists a link between revenue allocation formula and economic growth when one considers the position of government capital formation; the specific objectives of this study are to:

- Examine the extent to which the revenue allocation formula adopted in the past has affected the path of economic growth and development in Nigeria.
- Investigate the linkage between revenue allocation formula and the living condition of the people.

1.3 Fiscal Revenue and Economic Growth

In line with most growth theories, natural resources, human resources, capital enterprises and technology are all important for rapidly economic growth. Expenditures on human resources development via spending on education and research, provision of infrastructural facilities health care, housing and urban development, environment, quality of national statistics security and administration of justice are made possible for better still financed through the revenue gotten from the nation's resources. These invariably lead to economic growth. This therefore posits that an efficient revenue allocation is of great importance in the equation of growth.

Similarly, successive governments do make provision for human capital development and technological improvement through improvement in education funding and expenditure on research because of the fact that these are necessary ingredients for economics growth and development. It is often said that economic growth is possible even when an economy is deficient in natural resources. As pointed out by Lewis, (1990) "s country" which is often considered to be poor in resources today may be considered very rich in resources at some later time, not merely because unknown resources" Japan is one such country which is deficient in natural resources but it one of the advanced countries of the world because it has been able to discover new users for limited resources. Moreover, by importing certain raw materials and minerals from other countries, it has been successful in overcoming the deficiency of its natural resources through superior technology, new researches and higher knowledge.

It is also important to note that capital accumulation is one of the factors that enhance economic growth. Capital means the stock of physical reproducible factors of production. When the capital stock increase with the

passage of time this is called capital accumulation (or capital formation). The process of capital formation if cumulative and self-feeding and includes three inter-related stages.

- The existence of real saving and rise in them.
- The existence of credit and financial institutions to mobilize savings and to divert them in desired channels and
- To use these savings for investment in capital goods.

There are various possibilities of increasing the rate of capital accumulation. Since the propensity to save is low in most LDCs, developing countries including Nigeria Voluntary savings will not be forth coming in sufficient quantities. Therefore, the obvious way is to resort to forced savings. Forced savings reduce consumption and thereby release resources for capital formations. The various methods of forced savings are taxation, deficit financing and borrowing. These now brings out the role of revenue allocation formula because of the simple fact that in Less Development Countries (LDCs), the governments does the above. It is obvious that-how the fund/resources from this forced saving is being shared and the expenditure pattern is of great importance when we talk of rapid economic growth. More so, capital formation helps in providing machines, tools and equipment for the rising labour force. The provision for social and economic overheads like transport, power, education etc. in the country is through capital formation. It is also capital formation that leads to the exploitation of natural resources, industrialization and expansion of markets, which are essential for economic progress,

For an economy that is open like ours, the issue of economy growth cannot be discussed without bringing in interventional trade and hence the relevance of exports earning in particular. It is important to note that international free trade has been regarded as the "Engine of growth" that propelled the development of today's economically advanced nation during the nineteenth and early twentieth century's. Rapidly expanding export markets provided an additional stimulus to growth local demands that led to the establishment of large scale manufacturing industries. Together with a relatively stables the developing country of the nineteenth century to borrow funds in the international capital market at very low interest rates. This capital accumulation, which is very important to growth in turn stimulated further production, made possible increased imports and led to a more diversified industrial structure.

Having gone through some of the important economic factors of growth, it is important to note that there are some non-economic factors that are also crucial to rapid economic growth development. It is surface to say that final distinction between the historical experience of developed countries and the situation faced by contemporary developing nations relates to the nature of social and political` institutions. One very obvious difference between the developed and the under developed nations is that well before their industrial evolutions, the former were in dependent consolidated nation states able to purse national policies on the basis of consensus toward modernization.

2.0   Empherical Review

The term "development" and growth have nothing to do with the type of economy existing in a country but distinction rather relates to the nature and causes of change (Schumpeter 1949).

Olowonomi 2000 also posited that fiscal federalism raises several complex questions: the complexity of the questions storms from the distinction nature of federalism as a form of government in which the legislative, executive and judicial powers of the state are shared among a number of coordinate governments. The principle of ordinate authority, which the principle of fiscal federation requires, state' that each government in a federation should have under its control adequate financial resources to sustain its independent authority. He went on to add that the fiscal structure in my federation is determined by the provision of the federal constitution.

Anyanwu 1995 posited that revenue allocation is usually based on three arguments, that is "balancing", "Equalization" and "Promotional". These are meant to attain two broad objectives, namely, efficiency and equity. He added that due to the problems of non-correspondence / vertical fiscal imbalance (incongruence between the responsibilities assigned to the various levels of government and the revenue powers / Source assigned to them) and equalization / horizontal fiscal imbalance (differences in the per capital distribution of income and wealth as well as in the volume of sales of transactions among states and local governments), revenue allocation has

emerged as a means not only to enhance economic growth and development but also to promote efficiency, equity and national unity, and minimize inter governmental embodying many government units necessitates revenue sharing, which again depends on the availability and the amount of revenue to be shared as well as the formula and principles of sharing.

2.1   Theoretical Framework
2.1.1   Traditional Neoclassical Growth Theory
        According to Dernburg-IMcdougall (1980), economic thinking of the 1930s concentrated almost exclusively on labour as a factor of production. Conversely, the early post World War II growth theorists pushed the pendulum to tile opposite extreme and concentrated on, the role of capital in the growth process. More recently economists have tried to develop an integrated view that combines the effects of labour force growth, capital growth, and improved technology in explaining economic growth. Many very interesting questions have been raised. If output per capital tends to grow at a particular rate in a full employment economy, what is the magnitude of that growth rate, and what are their determinants? What fraction of growth is due to the fact that each worker has more capital to work with? What fraction is due to the fact that labour itself might become more productive as standards of health, education and training improve?

        Todaro (2003) stated that another cornerstone of the neoclassical free-market argument is the assertion that liberalization of national markets draws additional domestic and foreign investment thus increasing the rate of capital; accumulation in terms of GNP. This is equivalent to raising domestic savings rates, which enhances capital-labour ratio and per capital incomes in capital poor developing countries. Traditional neoclassical models of growth are a direct out growth of the Harrod Domar and Solow models, which both stress importance of savings.

        The R.M. Solow neoclassical growth model in particular expanded on the Harrod-Domar formulation by adding a second factor, labour and introducing a third independent variable, technology to the growth equation. Unlike the fixed-coefficient, constant-returns-to-scale assumption of the Harrod-Domar model, Solow's neoclassical growth model exhibited diminishing returns to labour and capital separately and constant returns to both factors jointly. Technological progress became the residual factor explaining long-term growth, and its level was assumed by Solow and other growth theorists to be determined exogenously, that is, independently of all other factors.

        More formally the Solow growth model uses a standard aggregate production function in which $Y = K^{\partial}$ (J $(AL)^{1-\partial}$ ………………………………(1)

        Where Y is gross domestic product, K is the capital stock (which may include human capital as well as physical capital), L is labour, and A represents the productivity of labour, which grow at an exogenous rate. In equation (1) ∂ represents the elasticity of output with represent to capital (the percentage increase in GDP resulting from a 1% increase in human and physical capital). It is usually measured statistically as the share of capital in a country's national income accounts. Since ∂ is assumed to be less than 1 and private capital is assumed to be paid its marginal product so that there are no external economies, this formulation of neoclassical growth theory yields diminishing returns to capital and labour.

        In line with the traditional neoclassical growth theory, output growth results from one or more of three factors: Increases in labour quantity and quality (through population growth and education in which public fund is been expended upon), and improvement in technology. This underscores the importance of revenue allocation formula and other factors that are crucial to rapid economic growth and development.

2.2   National Revenue Mobilization, Allocation and Fiscal Commission (NRMAFC)
        The Babangida government decided to revisit the Dina revenue allocation commission of 1968 which had recommended the setting up of a permanent revenue planning and fiscal commission but which was at that time rejected by government. Decree no 49 of 1989 provided for the setting up of a permanent commission to review revenue allocation formula. The decree established the national revenue mobilization, allocation and fiscal

commission (NRMAFC), which was also charged with the responsibility of revenue mobilization, and promotion of fiscal efficiency.

Some of the specific functions of the commission include the design and mobilization on all sources of public revenues, the periodic review of revenue allocation formulae, the prescription and application of revenue allocation formulae as well as monitoring the accruals from the federation account and other joint accounts. In carrying out this task, the commission gave more emphasis to the local government as it allocated an all time high allocation of 15% to local government administration as shown below **.Insert table 1 and 2**

For the sharing among the states, the commission recommendation the following.

2.2.1   June 1992 Revenue Allocation Formula

Between 1990 and June 1992 there were about four revisions to the revenue allocation formula. However the June 1992 was more important because of the inability of local government to effectively administer primary education. Consequently the vertical revenue allocation formula was revised and the armed forces ruling council (AFRC) accepted the following arrangement.

Federal Government	48.5%
State Government	24%
Local Government	20%
Special Fund	7.5%

2.3   The Revenue Mobilization Allocation and Fiscal Commission (RMAFC)

On the inception of the new democratic dispensation after several years of military rules and in accordance with section 162 (2) of the 1999 constitution, the Obasanjo led administration set up a commission of September 1999 headed by Engr. Hamman Tukur. It would be necessary to state that the 1992 revenue allocation formula backed by decree 106 was in place and used into the new era of democracy. But this could not address changing realities like the increase in numbers of states (6) local government councils (185) and the constitutional provision that increase derivation principle from 1% to 13%.

By the time collations were made and analyzed, a critical study on constitutional responsibilities of each tier was done to assign commensurate indices through percentages to the beneficiaries. It was therefore not surprising that it took the commission almost a whole year to submit its first proposal to the president in August 2001, which was subsequently passed to the National Assembly for almost eight months before the Supreme Court verdict of April 2002 on resource control nullified special fund in the existing formula, which invariable affected the fact of the pending formula with the legislators.

Since an executive order, as authoritative interim measure which was legalized by a subsequent ruling of Supreme Court was in place, the commission had to device another strategy in making sure that the revised formula is fair and just without emotion or sentiments. It therefore with drew the early submission and asked for fresh inputs from stakeholders and general public on how to apply the special fund. The commission came up with the final sharing formula with federal government having 46.63% states 33% and local government 20.37%. It further recommended that FCT should be treated like a state so also the municipal councils. The implementation of derivation funds that will involve the host communities and tradition institution, compulsory contributory pension scheme to address the problems that are common and peculiar sources of discontent among tiers and provision of fund that will take care of ecology, technology research, solid mineral development, national reserve and agricultural development (Shuaib, 2003).

2.4   Vertical Revenue Allocation Balance in Nigeria

As earlier stated in the beginning of this chapter, Nigeria was a country that practices federalism provides the primary basis for the inter-governmental fiscal problems of the Nigeria public sector. Normally each tier of government should-be given adequate resources to be able to discharge its constitutional responsibilities, which is very important for the preservation of the autonomy of the constituent units. However, this is practically impossible in practice instead we notice that some may not have enough to meet their expenditure responsibilities from their own revenue source.

In Nigeria, fiscal imbalances have followed a distinctive pattern where the federal government is in a superior position and sub-national levels in an inferior position. This means that he central government engages in functional expenditure obligations than both the state and local government does.

An anomaly observed in the Nigeria situation is the inclusion of derivation as a part of vertical revenue allocation under a special fund instead of the universal practice of including it as a principle in horizontal revenue allocation. This explains partly the measure percentage allocated to it. (Tijani and Godowoli, 1992) observed that he apparent oscillation in the use of the principle is responsible for the state of affairs. In particular,, certain sections of the country (especially the oil producing states) felt circumvented that the principle of derivation was lightly emphasized in revenue sharing arrangements from the 1940s through the 1960s when the nations economic mainstay was agriculture, but de emphasized when oil became the major revenue earner from the early 1970s. the issue was further politicized with argument over on shore and off shore oil until the recent time.

Thus, while some people argued that derivation should be used to compensate those areas where bulk of the revenue that goes to the federation account comes from because of the associated costs (of pollution, disruption of socio-economic life of the communities etc), others are of the view that view that unbridled use of derivation as a principle for revenue allocation will accentuate regional inequalities. Indeed, the Aboyade commission (1979) had argued along the line of (Scott 1964) that the derivation principle has little or no place in cohesive fiscal system for economic growth, national unity and social development.

3.0 Model Specification

In theory, economic growth is influenced by multiple factors. But in the study will shall adopt the neoclassical growth model, which stresses the importance labour, capital and technology. Thus the expanded version of Harnod-Domar model by Robert Solow stated more formally the growth of model as follows:

Folowing lyoha (1996), we include the shares of state, local and federal government revenue form federation account into our model. This is because revenue enters the growth equation through expenditure on capital formation and employed. This is particularly important when one consider the fact that the roles of the private sector in Nigeria, until recent time is not pronounced like the public sector.

Thus, our model become: GD.PR = F (K, L, Fed, stat, loc) ………………. (2)

Although in Iyoha (1998) model, he failed to incorporate political instability but the role of this factor was stressed by Borno and Lee, (1993). Hence as dummy variables is introduced to capture the influence to capture the influence of political instability in our model. GDPR = FCK, L, Fd, Stat, Loc, Dum) …………………… (3)

Finally, inflation rate is included just like Iyoha did to capture macroeconomic instability during this period. It is postulated to be detrimental to economic growth and development for the familiar economic reason. These include uncertainty about the profitability of long term investment and tendency towards speculative activities.

Thus, our model to be estimated takes the form of a single equation in economic growth as GDPR = FCK, L, Fed, Sta, Loc, um, infl) ……………………… (4)

More formally, the model is specified as:

$$GDPR = a_0 + a_1 Pop + a_2 INV + a_3 FED + a_4 STA + a_5 LOC + a_6 INF + a_7 DUM + U_t$$

3.1   Data Sources and Characteristics

GDPR   =   Real gross growth rate

Pop   =   Population growth rate in Nigeria. Rising population connotes
              cheap labour and large market for product of enterprises, which expected   to promote the economic growth (green and Villanueva 1991; Fry 1991; Oyejide 1994; as sited ein James 1998).

INV   =   Gross Fixed Capital Formation / GDP ration

FED   =   Growth rate of share of federal government from the federation account.

STA   =   Growth rate of share of rate of state government from the federal account

LOC   =   Growth rate of shares of local government from the federal account.

INF   =   Inflation rate

DUM   =   Dummy variable presenting political instability
UT   -   Stochastic error in with usual white noise properties
I   =   Political Stability
O   =   Political Instability

Hint? a_0…………………a^7 are the regression coefficient or impact multipliers to be estimated and a_0........................ $a_5 > 0_1$ a_0 a_6 and $a_7 < 0$.

Data used in this study is purely secondary data and was sourced from the World Bank Publication and Central Bank Statistical bulletin.

Estimation Technique

For the purpose of this project, we shall we the ordinary least square method to estimate its properties and correlation coefficients which measure the goodness of fit of the regression line.

Analysis of variance (ANOVA) conducted in this study to test the overall significant relationship between the economic growth process in Nigeria and the existing revenue allocation formula and other factors captured in the model. The decision rules is that we accept Hi if $F^x > F0.05$ or vise versa. The test shows that F^x = 4.42 while $F0.05$ = 2.51 at 5% with $V_1 = K-1 = 7_1$ and $V_2 = N - K = 24$.

4.0   Discussion of Result

Table 1.0 show that there exists a direct relationship between the revenue allocation formula as proxies by the share of federal, state and local government from the federation account and economic growth process in Nigeria. This implies that the revenues allocation formula is a catalyst for economic growth and development. The sign of these variable conform to the a prior expectation that us positive and except for the share of state that is not statistically significant, other were significant at 10%. The magnitude of the coefficients especially FED and LOC further conform the need improve in finding of local government considering the elasticity of these variables as regards economic growth process. This interpretation should be consider under a condition of equal absorptive capacity between states and local government.

However, inflation rate turn out to negatively related economic growth and statistically significant. Thus policy to maintain macroeconomic stability by controlling the rate of inflation within reasonable limit is required to promote economic growth and development. More importantly high and variable rate of inflation not only complicates the problem of government expenditure planning for economic growth and development, they also send wrong signals to private sector investors. However the case of political instability tends to be insignificant but we do not fail to establish the fact that negative relationship exist between economic growth and political instability because of the earlier reason given in this study

4.1   Presentation of Regression Result

The result of the regression of equation is presented in table 3.0 below.The results in table 1 above shows that all the parameters conformed to prior expectation. It is also clear from the table that LOC, INF, FED are all significant based on the standard error and T-values of this coefficients. However, others are not significant even though they appear with the right signs. The F-values of 4.42 reveal that the result is relatively stable and to bust while the R_2 (0.66) shows that about 66% of the systematic variation in GDPR is caused by the variable in the model. Lastly the DW value of 2.010 shows that there is no serial auto correlation in our model.

Analysis of variance (ANOVA) conducted in this study to test the overall significant relationship between the economic growth process in Nigeria and the existing revenue allocation formula and other factors captured in the model. The decision rules is that we accept Hi if $F^x > F0.05$ or vise versa. The test shows that F^x = 4.42 while $F0.05$ = 2.51 at 5% with $V_1 = K-1 = 7_1$ and $V_2 = N - K = 24$.

The R^2 which is the coefficient of multiple determination, tell us the percentage of the total variation in the dependent variable (GDPR) as explained by the regression line. The higher the R^2, the greater the percentage of the variation in GDPR as explained by the explanatory variable and the better the goodness of fit of the

regression line to the sample observations. The R^2 in the estimated regression is 0.66 and this means that about 66% of changes in the Nigeria growth process is explained by changes in the explanatory variables in the model.

5.0   Finding and Policy Implication

The policy implication of the study is that during the period under review, the share of local and federal government from the federation account contributes to the economic growth process of Nigeria Hence the share of local government must be increased for improved performance. This is consistent with the findings of Iyoha (1998). However, the share of state from the Federation on account does not perform as expected. Hence, effort should be geared towards effective and efficient utilization of fund at the state level. The scenario at the state level may due to mismanagement and embezzlement of fund.

In addition, high level of inflation rate in the country during this period reflects macroeconomic instability. This may be caused by the continuous importation of goods especially consumable items, thus putting pressure on the local currency and the high cost of doing business in Nigeria.With respect to the dummy variable, the findings support the review that political instability affects growth negatively. The result corroborate the conclusions of other studies (see Barro Lee (1993), Gillian 1993)

The dup of labour and capital were as control variables here and the result confirms that labour and capital are growth catalyzing factors. Although they were not significant in this study and this may be partly sue to the low growth rate of capital and the high level of unemployment, thus, showing that labour has not been fully utilized. Effort should be geared towards increase in investment through expansion in private sector investment. On the other hand, public sector investment, which has been in the provision of inefficient social infrastructure, and moribund projects that fail to produce stimulating multiplier effects on the economy in the long run should be discouraged.

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Table1.0:Revenue allocation sharing formula

APPROVAL	RECOMMENDATION	GOVERNMENT
Federal Government	47%	50%
State Government	30%	30%
Local Government	15%	15%
Special Fund`	8%	5%

Table2.0:   For the sharing among the states, the commission recommendation the following.

APPROVAL	RECOMMENDATION	GOVERNMENT
Equality of state	40%	40%
Population	30%	30%
Internal revenue effort	20%	10%
Health, water, and mass and difficulty of terrain	8%	10%
Land mass and terrain.		10%

Table 3.0: regression result

VARIABLES	COEFFICIENT	STANDARD ERROR	T. STATISTIC
CONSTANT	0.066	1.303	0.051
DPOG	0.984	1.351	0.728
DWW	5.076	4.716	1.076
DFED	1.063	0.738	1.441
DSTA	0.960	1.814	0.529
DLOC	2.724	2.030	1.341
DINF	-0.114	0.063	-1.804
DUM	-0.872	2.660	-0.328

$R^2 = 0.66$ DW = 2.010 F = 4.42 ADJ $R^2 = 0.50$ S.E.R. = 5.727

Source: Author's Computation

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