Effects of Fiscal Decentralization on Selected Macroeconomic Variables in Nigeria (1990 – 2017)

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Abstract: *The paper investigated the effects of fiscal decentralization on some selected macroeconomic variables in Nigeria covering1990 to 2017. The Nigerian Government keeps restructuring its fiscal decentralization via different reforms over the years for the purpose of enhancing macroeconomic performance through the provision of public utilities to meet the needs of the public. The question is how these decisions and interests affect the efficient allocation of resources for the production and distribution of the wealth of the nation in the face of high rate of inflation and unemployment. The objective of the study is to determine the effects of fiscal decentralization on misery index in Nigeria. The study adopted secondary data which were collected from Central Bank of Nigeria (CBN) statistical bulletin, CBN's annual reports, and National Bureau of Statistics fact sheets. Data for the study were analyzed using Augmented Dickey-Fuller test, Johansen Co-integration test, Error Correction Method and Pairwise Granger Causality test. The study reveals that since revenue sources became centralized and the federal government takes commanding role essentially in fiscal terms at the expenses of the states and local governments. Revenue allocation to federal government, allocation to states, and local governments have a long-run relationships among the variables, and causal relationship with macroeconomic performance in Nigeria. The study also perceives a restricted freedom of fiscal decentralization in the country. The paper suggests a revision of fiscal decentralization to relief the federal government from its total dominance or powers in order to enshrine true federalism.*

Keywords: *Decentralization, Macroeconomic variables, Performance*

1.0 INTRODUCTION

A federation could emerge either by aggregation of previously independentsovereignty to become a single sovereign state. (Australia, Canada, United State), or by devolution, that is decentralization of certain level of political authority to sub national governments within a sovergn state, such as Nigeria, Pakistan, India) (Prest 1975; Aboyade, 1985, cited in Anyato, 1996). Fiscal decentralization mirrors the amount of fiscal autonomy and responsibility accorded to sub national governments; this has been the concern for many developing and developed countries. Fiscal decentralization is a situation where governmental functions and revenue sources are divided among central and sub national (states and local) governments. Fiscal decentralization is the dynamic interaction between different levels of government and

therefore poses questions as to how the nature and condition of the fiscal relation in any federal system affect the production and the distribution of the wealth of a nation. It influences how political decisions and interests influence the location of economic activities and the distribution of the cost and benefit of these activities (Nnamocha, 2002).

The government functions in Nigeria are divided into two which according to Anyato (1996) include: The exclusive list and the concurrent list. The exclusive list consist of items and functions left for the federal (central) government alone, while the concurrent list consist of items and functions where both central and state government legislate. The inclusion of items in the exclusive and concurrent list is based on the theory of fiscal federalism. The division of government activities among different levels of government in Nigeria requires the division of overall revenue structure. That is, different taxes being apportioned to be levied and administered by different levels of government (Nnamocha, 2002).

The process of fiscal decentralization in Nigeria passed through a long history of commissions and also legal backing laid in the constitution. It started in 1946 by Phillipson's commission, then Hicks-Phillipson commission of 1964; Dina committee of 1969; Aboyade's Technical committee of 1977; Okigbo's commission 1980; Allocation of revenue amendment decree of 1984; Danjuma commission of 1988 and the National Revenue Mobilization, Allocation and Fiscal Commission (NRMAFC) established by Decree No 49 of 1989 as an independent and autonomous commission and is not subject to the direction of any other authority or person in the exercise of its powers (Ike, 1981;Ekpo, 2003)

Nigeria had evolved from unitary to fiscal decentralization during the colonial era and there seems to be continued growing agitation for deeper centralization. In clarion call for this division of responsibilities most Nigerians focus is to improve the performance of the public sector in the provision of public sector in the provision of public utility and other services by ensuring a proper alignment of responsibilities and fiscal instruments.

Fiscal decentralization is the dynamic interaction between different levels of government and therefore poses a question as to how the nature and condition of the fiscal relation in any federal system affect the production and distribution of wealth of a nation. It influences how political decisions and interestsinfluence the location of economic activities and distribution of the cost and benefit of these activities.

The available literature indicates that the empirical evidence emerging from studies about fiscal decentralization performancein Nigeria has so far yielded a lot of mixed feelings that are inconclusive and moreover contradictory outcomes. Due to varying results the issue of whether fiscal decentralization has significant effects or otherwise on macroeconomic variables is still subject to further investigation. It is on the basis of the above premise that this research is necessary to fill the existing knowledge gap.

The main objective of this study is to assess the effect of fiscal decentralization on macroeconomic variables in Nigeria.

H_{01} Revenue decentralization has no significant effect on selected microeconomic variables

H_{02} Expenditure decentralization has no significant effect on selected macro economic variables

H_{03} Fiscal dependence has no significant effect on selected macroeconomic variables in Nigeria.

2.1 Conceptual Review

Conceptually, Fiscal Decentralization Policy (FDP) is an aspect of intergovernmentalfiscal relations which depicts the delegation and/or devolution of fiscal authority – thedecision making power on the composition of public revenue and expenditure to sub-nationalgovernments. Thus FDP is the resignation of fiscal powers from the centralgovernment to lower tiers of government, vis-à-vis local councils and states/counties. It is"the empowerment of communities by fiscally strengthening their local governments and theentire system of sub-national government finance are an integral part of the policies andstrategies needed for achieving the MDGs" (UNDP 2005:5). It will therefore not be erroneousto aver that a well formulated and executed FDP may reduce poverty. This notion is howeverseldom refuted in the literature; the current debate is therefore centered on the extent to whichthe various degrees of FDP adopted in different countries have influenced poverty reduction,especially in a third world country like Nigeria. Unfortunately, there is dearth of quantitativeempirical examinations on this issue. Although the devolution of fiscal powers is relativelynew in most African states, but this "issue of intergovernmental fiscal relations has been aconstant and important fiscal policy consideration in Nigeria" since independence (Alm andBoex 2002:1). Since "it is expected that fiscal decentralization wouldstimulate…development, there is *therefore* the need to ascertain whether this has taken placein the country particularly as large amount of resources have been transferred from the centerto both State and Local Governments" (Akpan 2004: 33).

2.2 Theoretical Review

2.2.1 Decentralization Theorem

This theorem was put forward by Oates (1972), according to him "For a public good the consumption of which is defined over geographical subjects of the total population, and for which the costs at providing each level of output of the good in each jurisdiction are the same for the central or for the respective local government-it will always be more efficient (or at least as efficient) for local governments to provide the pareto-efficient levels of output for their respective jurisdictions than for the central government to provide any specified and uniform level of output across all jurisdictions". Hence Oates (1972) argues that provision of public goods in the face of market failure are more efficiently provided by sub national governments than by Federal Governments, for the theoretical reason that average demand of a small group (say at sub national level) is convergent as compared to the diverse demand at the federal level. This demand seem peculiar at sub national level than Federal level and providing public goods that meets the average demand of households in a given population group will improve

economic welfare. This implies that devolution of expenditure powers to sub nationalgovernment's increases macro-economic performance, welfare and efficiency in the provision of public goods when the output approximates the average demands of households in that geographical jurisdiction that internalizes its provision and should include precisely the set of individuals that consumes it.

Thus, the theory of fiscal decentralization rests on the foundation that efficient allocation of public resource to match preferences for service is facilitated by factors such as; access to local knowledge, alignment of resources to services, local financial autonomy in planning and service delivery, scope for achieving cost-effectiveness in service delivery and performance accountability in service provision. The theory posits that welfare would be maximized if each local government provides the pareto-efficient output for its constituency.

2.2.2 Musgrave's Theory of Fiscal Decentralization

Musgrave classical treaties of 1959 laid a strong foundation for fiscal decentralization where he classified the economic functions of government into three; stabilization, distribution and allocation functions. The stabilization function relates to aggregate demand, fiscal policy and the maintenance of price stability. The distribution function is based on tax and transfers, such that a given level of economic efficiency is consistent with ethical notions of the appropriate distribution and provision of public goods and services which the market system failed to produce efficiently.

These three fold functions of the government have their implications for fiscal decentralization. The stabilization function of the government is effectively and efficiently done at the national level, as stabilization policy is self-defeating if undertaken by subnational government, since fiscal policy that is locally financed is likely to benefit other areas/regions other than the area/region financing the activity. This suggests that for efficiency, stabilization policies are best handled at the federal level. The distributive functions as well should be effectively left to the central government.

According to Musgrave (1989) " whereas the federal government had to be granted basic taxing powers by the constitution the state did not need this provision. Taxing power of the state is vested in their sovereign rights as constituent members of the federation and retained by them under the residual power doctrine. The constitution, however imposes certain restrictions on the taxing power of the state, partly through specific provisions and partly again through judicial application of other clauses of the constitution to tax matters". This explains clearly why distributive function is best left to the central government except for those taxes which the subnational government is deemed to handle more effectively because of their localized nature. While the allocation function, depending upon the economies of scale in production and diversity of taste in demand are theoretically, effectively and efficiently undertaken by subnational government.

Diamond (1990) notes that in Nigeria, less attention has been given toexamining the productiveness of the various components of public spending.Longe(1984) examines the growth and structure of government expenditures in Nigeriawith a view to ascertaining if the pattern fits with the results of other countries. Thus,his study revealed that government expenditure has shown many considerablestructural shifts over the review period and that the ratio of government expenditureto GNP has been rising and corresponds with the rising share hypothesis.

Odusola (1996) adopts a simultaneous equation model to capture theinterrelationship between government expenditure and economic growth in Nigeria.The study revealed that aggregate military expenditure was negatively related toeconomic growth at 10% significance level and when decomposed into recurrent andcapital expenditures, the former was more growth retarding than the latter. As revealedby Ekpo (1995), capital expenditure on transport, communication, agriculture, healthand education positively influence private investment in Nigeria, which invariablyenhanced the growth of the overall economy. Cameroon (1998) examines the effectsof fiscal policy on growth, which focus was on the relationship between public spendingand growth through private investment. A derivative of Denison growth accountingmodel was used in the study to analyze the relationship between Cameroon's fiscalpolicy and economic growth. He used the ordinary least squares (OLS) technique inestimating the equation that link private investment and growth. The result of thestudy showed that expenditure especially on education and health crowd-in privateinvestment.

Aigbokhan (1999) and Barro (1990) used endogenous growth model to investigate the pattern of fiscal decentralization on economic growth in the country. The study found a high ratio of concentration of both expenditure and revenues, which appeared skewed in favour of decentralization. On the effect of decentralization on economic growth, the study found that rather than promote economic growth, the prevailing pattern of fiscal decentralization acts as a constraint to economic growth.

Empirical Review

Ekpo and Ndebbio (1996) examined the fiscal operations in the Nigerian economy using a historical come political economy approach. They argue that states were more dependent on the federal government before the economic crisis of 1979 and 1980. However, during the economic stabilization and adjustment period, the country witnessed greater fiscal decentralization.

In yet another study in Nigeria, Taiwo (1999) provided a theoretical basis for fiscal federalism and analyzed the various fiscal problems the country was facing. The study argues that the federal government should assume distribution and stabilization functions and the provision of national public goods. States and local governments should take up the responsibility of providing local public goods. The study, among other things recommended that the various tiers of government should jointly participate in central revenue collection and

sharing. The study hinges the success of fiscal federalism on liberal democracy, technical and administration capacity building, local autonomy and revenue mobilization to support government activities.

Fornasari, Webb and Zou (2000); Martinez-Vazques and MacNab (2006); King and Ma (2004); Neyapti (2004) in their studies found that fiscal decentralization stimulate macroeconomic stability and economic growth. Feltenstein and Iwata (2005); and Thornton (2007) found a negative and insignificant relationship between fiscal decentralization and macroeconomic stability.

Treisman (2000) investigated the impact of fiscal decentralization on average inflation rates in a panel of 87 countries. His findings show clear divergence in the relationships between fiscal decentralization and inflation among developed and developing countries. Among OECD countries, fiscal decentralization is linked with significantly lower average inflation rates in the 1979s and 1980s. Among non-OECD countries, more politically and fiscal centralized economies suffered from higher average inflation rates. Empirical analysis suggests that decentralization helps preserve central bank independence in OECD countries, while in non-OECD countries it increases pressures on the government to overspend and get central bank to monetize the deficit.

Feltenstein and Iwata (2002) investigated the impact of fiscal decentralization on economic growth in China, using a Vector Auto regressive (VAR) model. Their findings reveal a strong correlation between decentralization and macroeconomic performance in China. Their findings further reveal that whereas fiscal decentralization has positive effects on growth of real output in post-war China, it results in adverse effect when related to the rate of inflation. In conclusion, the study argues that fiscal decentralization seems good for economic growth but bad for price stability.

Xie et al. (1999) assessed the particular influence of fiscal decentralization oneconomic growth in the USA. They used time series data from 1948-1994 and estimatedan econometric model. The study recognized three levels of government i.e. Federal,Provincial, and Local. They wrapped up the study showing that the current governmentspending shares were consistent with growth maximization; however the co efficientwere insignificant. They argued that the advancement in decentralization would divergeeconomy from the growth maximizing path and might be damaging to economic growthin the U.S.A.

Malik S. et al. (2006) imparted theory about the relationship between fiscal decentralization and economic growth for Pakistan. They used time series data for the period 1972 – 2005 and employed the first order moving average process. The study sought out mixed results and the study concluded that fiscal decentralization shows the way to accelerate economic growth.

Zhang and Zou (1998) studied Decentralization in China by using panel data setfor the years 1980 to 1992. The study evaluated Fiscal Decentralization as a contributionof Federal

spending in central government spending. They employed least squareregression model and hit upon a negative relationship between fiscal decentralization andeconomic growth.

Akai and Sakata (2002) appraised the contribution of fiscal decentralization toeconomic growth. They used US state level data and estimated a linear regression model.The study revealed a positive relation between fiscal decentralization and economicgrowth at the state level on the U.S.

Ebel and Yilmaz (2004) quantified the role of fiscal decentralization onmacroeconomic indicators. They followed the DeMello, Davoodi, Zou; 1998 and Oates;1972models and used the data of ten different OECD countries'. They found that theintergovernmental transfers "worsen fiscal position" of the sub-national governments. Many other reviewed works are stated in the table below:

Table 2.1 Review of Some Empirical Works.

Empirical Study	Countries covered	Time Period	Technique	Findings
Davoodi&Zou (1998)	46 Developed and developing economies	1970-1989	Fixed effect Model Time Dummies	Higher spending decentralization reduces economic growth in developing countries.
Wollar& Philips (1998)	23 Developed economies	1974-1991	Fixed effect model time dummies	Revenue and spending decentralization has no significant impact on growth.
Thieben (2003a)	21 developed economies	1973-1998	OLS	Expenditure decentralization has positive effect on economic growth and quadratic term has significantly negative effect on economic growth.
Thieben (2003b)	26 Developed economies	1981-1995	GLS	Spending decentralization increase growth rate of GDP.
Limi (2005)	51 Developed and developing Economies	1997-2001	GLS, PCSC, IV	Decentralization has positive effect on economic growth in developing countries but it negatively affect economic growth in developed countries.
Enikolopov&Zhuravskaya (2007)	75 Developing and transition Economies	1975-2000	OLS, 2SLS	Higher revenue decentralization has negative effect on economic growth. Initially revenue decentralization has negative growth effect but it becomes positive over time.
Rodrigueez&Ezcurra (2010)	OECD Countries	1990-2005	OLS	Decentralization has negative impact on economic growth.
Iqbal& Nawaz(2010)	1	2000-2009	Misery Index	It reveals that a significant positive impact of fiscal decentralization on macroeconomic stability.
Bodman (2011)	OECD Countries	1981-1998	OLS	Spending and revenue decentralization has no significant

				impact on economic growth.
Abachi&Salamatu (2012)	1	1970-2009	OLS	It reveals that a lower government depends heavily on the federal government for revenue.
Gemmel et al (2013)	OECD Countries	1972-2005	PMG and IV regression	Spending decentralization retard economic growth where as revenue decentralization enhances growth.
Baskarran& Feld (2013)	OECD Countries	1975-2008	Fixed Effect Model, OLS	Revenue decentralization has negative impact on economic growth.
Adefeso& Saibu (2014)	1	1970-2011	VECM	The study shows a unidirectional causality run from economic development to fiscal decentralization. i.e. economic development granger causes fiscal decentralization.
Udoh, Afangideh, Elias &Udeaju (2015)	1	1980-2012	ARDL/Bounds Testing Approach	It reveals that transparency and accountability at all levels of government is required to make fiscal decentralization supportive of economic growth and human resource development.
Szarowska, I. (2015)	European Union	1995-2012	Generalized method of moments (Dynamic Panel Data)	It reveals that government should be given autonomy and authority in fiscal expenditure matters.
Udoh, Afangideh, Elias &Udeaju (2015)	1	1980-2012	ARDL/Bounds Testing Approach	It reveals that transparency and accountability at all levels of government is required to make fiscal decentralization supportive of economic growth and human resource development.
Hasanov, mikayilov, Yusofov&Aliyev (2016)	1	2002-2003	Auto regressive Distribution Lad bounds Testing Approach.	The result reveals that transparency and accountability at all levels of government is required to make fiscal decentralization supportive of economic growth and human resource development.
Umaima&Eataz (2017)	52	1996-2014	Panel Data set	The result shows that fiscal decentralization is growth enhancing when it's complemented by sounds institutional structure in terms of low corruption in government institutional structure in terms of low

				corruption in government institutions, rule of law, high bureaucratic quality and democratic accountability.
Bojanic, A.N. (2018)	1	1990-2018	Multiple Regression	It reveals that decentralization seems to initially bluster freedom, but it eventually constrains it, providing that greater accountability and political and civil liberties do not necessarily lead to greater economic freedom.

3.0 METHODOLOGY AND MODEL SPECIFICATION

The research uses the time series data and it covers a period of 28 years (1990-2017), this period was adopted to give a fair assessment of the impact of fiscal decentralization on macroeconomic performance in Nigeria.

The study uses econometric techniques to analyze time series data. Among these techniques include, the descriptive statistics, Augmented Dickey-Fuller (ADF) to test for a unit root in the individual data series as demonstrated by Dickey and Fuller, (1981), Johansen co integration was also used to test for the integration of all the data series (Johansen, 1991). The error correction model (ECM) is used to estimate the model, moreover, the Pairwise Granger causality test to indicate the direction of causality between fiscal decentralization and macroeconomic variables in Nigeria (Engle and Granger 1987).

This study employed secondary data collected from the following sources: Central bank of Nigeria's statistical bulletin (various issues including 19990 -2016 editions); National bureau of statistics' statistical facts sheets; CBN's annual reports (various editions); www.economywatch.com; www.knoema.com; and www.indexmundi.com. The data series sourced and used in this study include: misery index (midex), fiscal decentralization-revenue (fidr), fiscal decentralization-expenditure (fide), and fiscal dependence (fisdep).

3.1 Model Specification

The study measure some macroeconomic performance and economic stability using the misery index as proxy. The misery index certainly approximates the Nigeria economy very closely as it is the combination of inflation and unemployment which have simultaneously continued to be on the increase in Nigeria economy. Thus the misery index can be stated as follows:

Midex= Unem + Inf ……………………………….. (1)

Where:

Midex = misery index, that is:

Unem = unemployment;

Inf = inflation rate.

While it is agreed that unemployment and inflation reduce aggregate demand for goods and services, thus impeding growth in the output, it is the focus of the study that revenue and expenditure decentralization is the prime determinant of macroeconomic performance and stability in Nigeria. The following equation prevails:

Midex = f(Fidr + fide +fisdep)…………………………………………..(2)

Where:

Fidr = Revenue decentralization;

Fide = Expenditure decentralization;

Fisdep = Fiscal dependence.

Thus: midex = $\alpha_0 + \alpha_1 Fidr + \alpha_2 Fide + \alpha_3 fisdep + \mu$, …………………………(3).

The a'priori expectation isthat : $\alpha_1, \alpha_2, \alpha_3 \leq 0; \alpha_3 \geq 0.$

4.0 Result and Discussion

To estimate the regression analysis, oneneeds to conduct a unit test to ascertain the stationary of the variables. This will identify the order of integration. The ADF test was used for the unit root test, and the following results obtained:

<u>Table1</u> indicates the result of the ADF test conducted. The unit root test reveals that all the variables are stationary at different stages, that is, midex is of order 1 (2), Fidr is of order 1 (1), Fide is of 1 (1), and Fidep is of order 1 (2); therefore, it is necessary to carry out the co-integration test to ascertain whether the variables have a long-run relationship.

Table 1.Augmented Dickey-Fuller Stationary Test Results. <u>ADF t statistics (p)</u>

S/No.	Variable	Level	1st and 2nd difference	Critical value
1.	Midex	-0.009054	-2.310220(1st)	1% = -3.532597
		(.9458)	(.1265)	5% = -3.573616
			-3.152918(2nd)	10% = -2.277364

No.	Variable			
			(.0006)	
2.	Fidr	-2.781406	-8.334512(1st) (.0000)	1% = -3.532597
		(.2177)		5% = -3.573616
				10% = -2.277364
3.	Fide	-1.254241	-4.107039(1st)	1% = -3.532597
		(.4681)	(.0135)	5% = -3.573616
				10% = -2.277364
4.	Fidep	-1.954404	-3.341389(1st)	1% = -3.532597
		(.4876)	(.0647)	5% = -3.573616
			-4.1243222(2nd)	10% = -2.277364
			(.0005)	

Source: Authors' computation using Eviews 7 computer software. ADF = Augmented Dickey-fuller

Table 2. Johansen Co integration results

Date: 06/07/2018 Time: 06:00

Sample (adjusted): 1990 2017

Included observations: 28 after adjustments

Trend assumption: linear deterministic trend

Series: Midex, Fidr, Fide, Fidep
Lags interval (in first differences): 1 to 1

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.5 critical value	p^{**}
None*	0.643288	63.18805	27.85613	.0001
At most 1*	0.741527	34.82787	49.79707	.0016
At most 2*	0.527419	17.36162	55.49471	.0100
At most 3*	0.270286	5.324814	3.841466	.0034

Trace test indicates 4 co integrating equations (CE) at the .05 level

*denotes rejection of the hypothesis at the .05 level

**Mackinnon-Haug-Michelis (1999) p values

Unrestricted Co-integration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistics	0.5 critical value	p**
None*	0.543288	23.36018	22.58434	.0041
At most 1*	0.441527	14.46625	11. 13162	.1133
At most 2*	0.327419	10.03651	12.26460	.2045
At most 3*	0.270286	8.324414	3.441466	.0031

Max-Eigenvalue test indicates 1 co integrating equation(s) at the .05 level

*Denotes rejection of the hypothesis at the .05 level

**Mackinnon-Haug-Michelis (1999) p values

Source.Author's computation using Eviews 7 computer software.

Table 2 presents the Johansen co integration results and the results show co integrating equation(s) at 05 level of significance in the Trace test and Max-Eigen test. This means that there is a long-run relationship existing within the variables under study.

Table 3. Error Correction Model (ECM) Estimates.

Dependent Variable: Midex

Method: Least Squares

Date: 06/07/18 Time: 15:05

Sample (adjusted): 1994 2012

Included observations: 28 after adjustments

Variable	Co efficient	SE	T statistic	P
C	2.239953	0.059301	41.49927	.0000
Fidr-(1)	0.060358	0.024539	2.434124	.0213
Fide-(1)	-0.126761	0.033299	-3.247681	.0023
Fidep (-1)	0.341320	0.21073	10.49073	.0000
ECT (-1)	-0.77240	0.043241	17.86267	.0000
R^2	.396247		M dependent avr	3.665626
AdjustedR^2	.495175		SD dependent var	0.137252
SE of regression	0.012413		Akaike info criterion	-5.335401
Sum squared resided	0.001123		Schwarz criterion	-5.416864
Log like hood	53.48631		Hannan-Quinn	-5.393338
F statistics	929.1236		Durbin-Watson Statistic	1.326131

Source.Author's computation using Eviews 7 computer software.

The p value of the ECM in the table 3indicates a .05 level of significance (p value of the model = .0000). this means that H_0 is rejected at .05 level of significance, meaning that the lag value of all the independent variables (Fidr, Fide, Fidep) jointly impact on Midex of Nigeria for the period 1990 to 2017, with only expenditure decentralization showing a negative significant result. This evidenced in the individual variables' p values. The R^2 in the model is showing that 99.62% of variability in economic development (Midex) is explained by the lag value of revenue decentralization in Nigeria. Durbin-Watson is showing 1.326131, meaning that there is no sign of serial correlation in the model.

Table 4. Residual Statistics

Residual test	Types of test	F statistics (p)
Heteroskedasticity Test	Breusch-Pagan-Godfrey Heteroskedasticity test	1.316540 (.2095)
Serial Correction Test	Breusch-Godfery Serial Correlation LM test	0.5681(.4572)
Normality Test	Jarque-Bera Normality test	4.237365 (.1793)

Source: Author's computation using Eviews 7 computer software.

Table 5. Pair wise Granger Causality Test Results.

Pair wise Granger Causality Test

Date: 06/07/18 Time 14:09

Null hypothesis:	Observation	F statistic	P
Midex does not Granger cause Fidr	28	2.14315	.1023
Fidr does not Granger Cause Midex		2.44041	.0248
Midex does not Granger cause Fidep	28	0.05335	.3557
Fidep does not Granger Cause Midex		1.3046	.0023
Midex does not Granger Cause Fide	28	0.01306	.5918
Fide does not Granger Cause Midex		2.0431	.0002

Source.Author's computation using EView 7 computer software.

The coefficient of the error correction term appears with the appropriate negative sign and statistically significant at 5% level after estimation. This is an agreement with the result of the Johansen Cointegration test, which shows a long-run relationship among the variables. The result of the ECM estimation has shown that about 77.24% of previous years' disequilibrium is

corrected each year from the long-run elasticity of the explanatory variables. However, the result shows a unidirectional security, running from revenue allocations to economic development in Nigeria.

5.0 CONCLUSION AND RECOMMENDATIONS

The study investigate the effect of fiscal decentralization on macroeconomic variables over a long period of time and the study affirms that decentralization has no significant effect on macroeconomic variables, essentially unemployment and inflation. The empirical results of the study suggest that public sector decentralization negatively affect growth rate of per capita GDP. However, this negative effect is offset by the positive influence of decentralization on growth if the presence of macroeconomic stability and good quality governanceis practiced.

Further, macroeconomic instability in terms of instability in high unemployment, rate of inflation, prices, budget deficit and exchange rate also depresses the growth effects of fiscal decentralization. Macroeconomic instability reduces the predictability of macroeconomic environment that results in volatile behavior of key economic variables. Unpredictable macroeconomic environment hampers the efficient allocation of resources, thereby adversely affect investment and economic growth and development. Macroeconomic stability is important for investor's confidence, effective capital inflows, capital accumulation, growth of private business, efficient allocation of resources, etc. In stable macroeconomic conditions sub-national governments would be able to efficiently allocate the available resources, widen the tax base and enhance their revenue generation capacity. Hence, macroeconomic stability is indispensable for realizing the growth enhancing effects of fiscal decentralization. The empirical results show that expenditure/revenue decentralization becomes growth enhancing if macroeconomic variables are relatively stable. This conclusion is in consistent withBojanic (2018),Arif, & Ahmad, (2017),Martínez-Vázquez, , &McNab, (2006).

6.0 RECOMMENDATIONS

In view of the above conclusion, the following recommendations are suggested:

1. Federal government should institute machinery in place to check-mate the alarming rate of inflation, unemployment and other macroeconomic variables in the country.
2. There should be proper governance and administration in the implementation fiscal discipline among the tiers of government.
3. The need to diversify and strengthen the fiscal base of all the tiers of government.

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