

Causality Analysis of Non-oil Tax Component of Government Revenue, Company Income and Transaction Taxes: Evidence from a Third World Developing Economy

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Abstract Overtly, the colossal infrastructural deficit occasioned by the ever increasing population of Nigeria requires sizeable revenue strings if they must be copiously addressed. Largely, the country has over time relied on oil revenue to carry-out her sacred duty of welfare and security provision along with efforts targeted at guaranteeing freedom of her citizenry amongst others. With the recent global drop in oil prices, there has been a general call for government to reinforce other channels of revenue generation so that the country can weather the tides of economic turmoil. This however calls for an understanding of the interrelatedness of various components of accruable revenue to the government through a causality study of such revenue components. This study thus focuses on a causality analysis of non-oil tax component of government revenue, company income and transaction taxes by obtaining empirical evidence from a third world developing economy – Nigeria. Time series data for 15 years were analysed based on the study's intent and with the use of relevant statistics like the unit root tests, chow test, granger causality test, least square and auto regressive regression analysis. Our study's outcome proved that while federally generated revenue proved to have been significantly improved by revenue from income taxes and stamp duties, the tax policies and their subsequent

amendments could not exert significant influence on non-oil tax revenue of government during the period. On this note, we recommend the need for effective policy pertaining to Stamp Duties and Companies' Income Tax (CIT) along with a marginal reduction in tax holidays of companies to the extent that the Stamp Duties' Act (SDA) is fully enforced/implemented *vis-à-vis* strict penalties for non-compliance. Outcome from this research has policy implications which stand to benefit regulatory bodies/policy makers, tax consultants, academics and key stakeholders as it presents key issues relating to CIT, SDA, and non-oil revenue of Nigeria's government.

Keywords Taxes, Government Revenue, Tax Holiday, Ad Valorem, Developing Nations, Transaction Tax, Nigeria

1. Introduction

Adequate provision for the security, welfare and freedom of the citizenry is one sacred duty of governments, the world over. This sacred duty presumably forms the bedrock for sustainable

socio-economic development and growth. Soubbotina [24] alluded to this fact by asserting that the quality of life of citizens of a state forms the basis of any development objective, which should be geared towards improved healthcare delivery, clean air, access to education, employment opportunities, safe drinking water and security of lives and properties. The availability and access to these amenities and infrastructures aptly determines the people's quality of life or standard of living.

Worth mentioning is the fact that governments' ability to provide the platform and atmosphere for sustainable socio-economic development requires huge capital investments. Specifically, Nigeria, being a third world developing economy requires huge revenue to make provision for the colossal infrastructural deficit occasioned by her ever-increasing population. Arguably, an efficient and/or effective tax system can possibly help governments in the area of generating sufficient revenue that would be used in catering for their projected expenditures on infrastructural development and satisfy the basic needs of their citizenry. This is why several countries of the world had relied heavily on taxation in order to generate the much needed revenue to cater for their respective developmental needs. In fact, studies have pointed that tax revenue guarantees a relatively stable and predictable stream of revenue to finance people-focused developmental projects [13,22,6].

As noted in the literature, tax payments partly represent prices paid for presumably living in organised/orderly societies, and constitute bulk of government revenue in Sub-Saharan Africa [3]. Notwithstanding, taxation systems vary across countries due to divergent socio-political and economic ideologies and aspirations at any particular time. This accounts for why tax systems in a country like Nigeria is seen as constantly evolving to meet the developmental needs of the federation.

Nigeria is abundantly endowed with crude oil in addition to other solid mineral resources, but sadly, successive governments exhibited the tendency to depend solely on oil revenue for funding developmental projects. However, as the population expanded and government responsibility increased, it became evident that over reliance on non-tax revenue (revenue from oil and other natural resources) was unsustainable given fluctuations in production capacity occasioned by militant activities in the Niger-Delta and global oil price shocks. To tackle this revenue shortfall, government resorted to massive borrowing in order to fund the huge budget deficits thus plunging the economy into debt crises and fiscal imbalance [4,28]. This has so far generated strident calls from interested stakeholders and the organized private sector who believes that government at all levels may need to explore alternative sources of generating revenue beyond oil.

To boost its non-oil revenue base, the Nigerian

government since 1939 has been enacting various tax ordinances' and laws to compel individuals and corporations to pay part of their earnings as tax. But given the twin challenges of tax evasion and avoidance, there is the need to ascertain if these tax measures have significantly contributed to federal government non-oil tax revenue. This forms the main thrust of this paper. In the light of the forgoing therefore, this research is aimed at:

- (a) ascertaining the extent to which Company Income tax (CIT) have significantly contributed to federal government non-oil tax revenue in Nigeria.
- (b) ascertaining the extent to which tax revenues from Stamp Duties have significantly contributed to federal government non-oil tax Revenue in Nigeria.

2. Conceptual Review

2.1. Evolution of CIT in Nigeria

Taxation has so far been described as a fiscal tool deployed by public authorities for public purposes. It depicts systems of raising compulsory levies by governments through well-defined fiscal tools with individuals and corporate entities as major targets/contributors [25]. Nightingale [16] described tax as contributions compulsorily imposed by governments. Though individual tax payers may not receive commensurate return *vis a vis* their contributions, no doubt, they ultimately gain from living in a relatively healthy, educated and secured society.

Historically the first known taxes on companies were imposed under the CIT ordinance 1939. This was said to have been consolidated with personal income tax (PIT) in 1940 under the tax ordinance (income tax) of 1940. As indicated by the ordinance, CIT was imposed upon any "person" and this expression was defined to include a company, under the 1940 ordinance, the tax was progressive and individuals with chargeable income exceeding fifty pounds and companies paid the same rate, which was 3 pence on every pound of the first €200 and progressively to 10 shillings for every pound exceeding €10,000. The ordinance further reiterated that dividends were deemed to have been paid to various shareholders net of tax deductions, as such should not suffer any more tax(es).

Noteworthy, three years after the initial enactment of the tax ordinance of 1940, another tax ordinance of 1943 was enacted specifically to consolidate on, and possibly amend the then 1940 ordinance. Notably, the key modification to the then 1940 ordinance as found in the 1943 ordinance hinged on issues relating to penalties. For the first time in the development of income tax laws in Nigeria, failures relating to overtly furnishing returns, or keeping relevant/required records were tagged as criminal. Similarly, acts of furnishing incorrect returns through

omissions or understatement of income were made criminal offences with option of fine or imprisonment or both.

No doubt, Nigeria's current tax systems has their roots in the Raiseman fiscal commission's recommendation that jurisdiction over CIT should be exclusive to Nigeria's central government so that the states except for certain uniform principles, should have jurisdiction over PIT.

Following the foray of the military into political governance between 1966 to September 1979, the CIT Decree (CITD) No.28 of 1979 was enacted to replace the CIT Act (CITA) of 1961 which originally amended the initially amended ordinance of 1943. This decree is a codification of all CIT enactments since 1961. Beginning from 1979, several amendments to CITD No.28. were made through several Acts/Decrees/Enactments (where applicable). As of 2020, the Finance Act of 2019 was signed into Law to amend several provisions of the existing tax laws in the country.

2.2. Company Income Tax (CIT)

These taxes are practically levied on profits of registered body corporate in Nigeria. By law, companies involved in petroleum operations are not subjected to CIT since they are assessed under a separate tax law. Primarily, companies operate with the aim of making profit; whereas, in the course of running the business, they are expected to enjoy essential services from the government - construction and maintenance of road networks, electricity and telecommunication facilities amongst others. The government on their part, support in the development of human resources through the establishment and maintenance of universities, colleges and other educational institutions. It therefore becomes imperative for companies to pay taxes which represent a key element of the contribution that they make to their respective economies as they operate [1]. In order to practically monitor and enforce compliance, Nigeria was able to promulgate CITA in 1979 (with subsequent amendments), establish the Federal Board of Inland Revenue and most recently, the signing of the Finance Act of 2019 [11].

2.3. Stamp Duty

Stamp duties are transaction taxes whose administration is jointly enforced by appropriate authorities established by government at either the state or federal level based on the nature or type of document involved. Stamp duties are revenue generation channels for concerned governments and are effectively levied on documents and/or instruments. Specifically, the chargeable rates of stamp duties depend basically on how identifiable taxable documents are classified. Thus, while some documents are chargeable on flat rate basis, others may be assessed on

ad-valorem basis [23]. Chargeable documents include marriage certificates, commissions, receipts cheques, documentations of transactions on real estates etc.

As a requirement of the law, any such documents to be tendered or admissible as evidence in any competent court of jurisdiction must fulfil the requirements of the Act establishing stamp duties in Nigeria. Stamp duty, believed to have originated in Spain, was introduced to other parts of the world around the 16th century (the Netherlands - 1620s; France - 1651; Denmark - 1657; England - 1694).

Nigeria introduced Stamp duty in the 1890s, although, it officially got legal backing on April 1st, 1939, by the endorsement of the Stamp Duties Act by Parliament. Since then, the law has had several amendments with the most recent, being the specifications in the Finance Act of 2019 which according to Jeroh [11] increased chargeable stamp duties on electronic transactions and receipts to ₦50 (fifty nairas) only once the value of such receipts/transaction amounts to at least, ₦10,000 (ten thousand nairas) only.

Section 4 of the Stamp duties Act, LFN, 2004 (as amended) states in clear terms, the competent authorities charged with the responsibility of imposing charges and collect stamp duties. While the federal government (FGN) that has the authority to charge/impose and collect stamp duties on documents/instruments relating to companies versus other companies and companies versus individuals, the law empowers state governments to collect such duties (stamp duties) on documents/instruments executed between and among individuals.

2.4. The Trajectory of CIT and Stamp Duty (SD)

Contributions to Total Non-oil Revenue in Nigeria

Table 1 depicts the growth trajectory of the contributions of CIT and SD to total non-oil revenue in Nigeria, from 2011 - 2017. As seen in the table, non-oil tax increased marginally from ₦153.4500 billion to ₦159.9208 billion between 2011 and 2012 representing 1.24% increase year-on-year. However, there was a marked improvement beginning from 2013 as revenue rose from ₦174.7771 billion in 2013, to ₦182.1231 billion by 2014. Lucidly, the period 2015 through 2017 witnessed very significant improvement in the percentage (%) contribution as it increased from 33.89% in 2015 to 38.56% in 2016 and 45.79% in 2017 with year on year increment of 7.23% between 2016 - 2017. Equally, of the two variants of non-oil tax, CIT has been contributing significantly to the total non-oil tax; this could be attributed to government tax reforms coupled with perceived committed implementation and possible enforcement of tax legislation aimed at ensuring that companies in operation pay tax commensurate with their earnings.

Table 1. Analysis of the Contributions of CIT and SD to Federal Government Total Non-oil Tax revenue

TAX REVENUE-COLLECTION BY TYPES.			
Years	Non- oil Tax	Actual Collections (₦billions)	% Contribution to the total collection
2011	CIT	151.3937	11.91
	Stamp Duty	1.9471	0.15
	Sub Total	153.4500	12.07
2012	CIT	156.4812	13.02
	Stamp Duty	2.0403	0.17
	Sub Total	159.9208	13.31
2013	CIT	167.8149	16.67
	Stamp Duty	2.1549	0.21
	Sub Total	174.7771	17.36
2014	CIT	176.8439	17.62
	Stamp Duty	3.8889	0.38
	Sub Total	182.1231	18.14
2015	CIT	265.3192	33.55
	Stamp Duty	1.4468	0.18
	Sub Total	267.9669	33.89
2016	CIT	933.5373	36.22
	Stamp Duty	5.9030	2.34
	Sub Total	1,124.7218	38.56
2017	CIT	1215.9568	42.34
	Stamp Duty	8.9335	3.45
	Sub Total	1,262.0092	45.79

Source: FIRS: Planning, Research and Statistics Department, 2018.

Empirical Review

Extant documentations on the presumed impact of taxation on federally generated revenue is replete with several studies that seeks to measure the contributions of CIT and stamp duty to non-oil tax revenue in Nigeria. Attempts were consciously made in this section to review related prior studies. In a Nigerian study, Adeusi, Uniamikogbo, Erah & Aggreh [2] probed the presumed causal link between non-oil income and economic growth. Four (4) proxies for non-oil income (VAT, CIT, PIT, and Excise Duties) were examined, whereas; GDP was utilized as the surrogate (proxy) for economic growth. These data (secondary) were gleaned from FIRS Statistical bulletin for 2018 and the NBS annual report of 2019. The data spanned from 1994-2018. Additionally, the OLS regression technique was applied to assess the causal link between growth and revenue (non-oil income) Findings indicates that secondary taxes (VAT and Excise Duties) exerted significant positive influence on Nigeria’s growth economically when compared to direct taxes (CIT and PIT). Equally, direct taxes exerted long run adverse shock on economic growth; thus necessitating the recommendation that government should control the country’s tax regimes by adopting and strategically implementing transparent and unassuming systems of tax

legislations with a view to avoiding tax elusion while sustaining moderate tax avoidance where absolute riddance of associated avoidance practices cannot be guaranteed.

Olaoye and Adebayo [18] assessed the effect which Nigeria’s BEPS (Base-Erosion-and-Profit-Shifting) has on revenue generation. By adopting *ex post-facto* design, efforts were made to collect quarterly data on GDP and tax revenue from the statistical bulletin and annual reports of the country’s central bank (CBN), exchange commission (SEC) and Inland Revenue Service (FIRS) respectively. The data were for 5 years (2013-2017) covering eighteen quarters. Simple regression with paired t-test alongside mean and other relevant statistics were computed and formed the basis of hypotheses testing. Results showed that revenue generated from tax after the adoption of BEPS significantly differs from what was gotten prior to BEPS adoption. Revenue from taxes was found to have exerted significant effect on Nigeria’s economy. The conclusion was that BEPS exerts significant positive effect on Nigeria’s economic growth.

In a given study, Ofoegbu, Akwu and Oliver [17] examined how tax revenue may possibly affect economic development (as proxied by Human Development Index – HDI) and Gross Domestic Product (GDP). The study

focused on Nigeria and annual data (time series) from 2005 to 2014 were used to estimate a linear model expressing the linkage between government revenue through tax and HDI. Findings revealed that estimating the effect of tax revenue on economic development using HDI presents a positive and significant relationship in comparison with GDP. They concluded that formulation of any policy or enactment on taxation in the country should take cognizance of, and emphasize more HDI rather than GDP. Similarly, in a related study, Baghebo [5], examines how taxation and government expenditure affects growth and economic development in Nigeria, by appraising the interventions of government on the economy through fiscal and monetary policies. While observing that corruption and mismanagement constitute one major hindrance to the effective channelling of revenue accrued from taxation and other sources, the study however advocated a more transparent, free and credible electoral process that may encourage the emergence of credible government officials with genuine interests in national development.

Iyehen and Mieseigha [10] examine taxation as a concept and instrument for growth in Nigeria's economy. Utilizing annual data from 1980 – 2013 (time series), a linear model linking CIT, VAT and GDP (proxy for growth in Nigeria's economy) was estimated using the Ordinary Least Square (OLS) technique. The empirical findings suggest that the hypothesized nexus among CIT, VAT and GDP indeed exist in the Nigerian context. The conclusion reached was that concerted efforts should be made on the part of tax administrators to avoid related sharp practices like tax evasion, avoidance, etc with a view to increasing growth consequent on an increase in federally generated revenue through tax in the country.

Etale and Bingilar [8] appraised the influence which direct taxes may have on Nigeria's growth. Time series panel data for 10 years (2005 to 2014) were compiled and analysis was done using the OLS technique. The research outcome indicates that data on VAT and CIT exhibited significant (strong) impact on Nigeria's growth. Given this outcome, the very need for the country to expand her tax net while simultaneously embarking on tax sensitization campaigns that will promote deliberate tax acquiescence by the teeming masses were recommended. Additionally, the study suggested the reinforcement of existing tax management systems in Nigeria as the current system appears to be largely deficient. In this vein, the study equally harped on why relevant tax directorates should engage qualified tax practitioners to efficiently administer the approved tax regime.

Takumah [27] conducted a Ghanaian study which investigated the causal link between tax proceeds and Ghana's economic growth. Utilizing quarterly data spanning 1986-2010 and with the aid of the Vector Autoregressive analysis, the research reported the existence of long co-integrating association among GDP,

foreign direct investment, tax revenue, consumer price index, gross fixed capital formation, government expenditure and labour force. Also, other evidence from the study's outcome suggests that Ghana's economic growth and tax proceeds exhibit both long and short run association. The study therefore recommends the expansion of possible tax collection techniques by strategically reducing tax rates or by expanding the tax base with a view to boosting Ghana's internal revenue base.

Olayungbo and Olayemi [19] investigated the causal relationships between government expenditure, economic growth and non-oil income in Nigeria and data for 35 years (1981-2015) were examined. The study which was poised to establish if there was any long-run association between the variables, utilized the error correction model to examine the impulse responses among identified variables. Additionally, the Granger Causality Test (GCT) amongst others was employed to conduct further analyses. Observably, the ensuing outcomes indicated that government's spending adversely influenced economic growth. Also, while non-oil income positively impacted significantly on government spending, its impact on Nigeria's economic growth was negative. Results from the GCT further confirm that non-oil income triggered government spending, yet its effect on economic growth was insignificant thus corroborating the tax-spending hypothesis advocated by the Keynesians. Among the recommendations made was that the country should focus on economic diversification beyond oil through a conscious and committed expansion of the country's industrial sector.

3. Methodology

The non-experimental design tends to examine the level of significance of the relationship and/or cause-effect of changes among variables. Thus, the non-experimental design was considered appropriate and useful in understudying a causality analysis of non-oil tax component of government revenue, company income and transaction taxes by obtaining empirical evidence from a third world developing economy – Nigeria. Our choice of design is further justified by its application by prior studies [15,21,7,26,12]. The data for this study (non-oil internally generated/tax revenue, CIT, Stamp duties) were collected from secondary sources and covered 16 year period – 2000 – 2015. The data were sourced from the publications of the Federal Inland Revenue Services (FIRS), and the CBN statistical bulletin.

The first step adopted for this analysis is the test of stationary (Unit root test), to ascertain the stationarity status of the data in order to avoid spurious results. Others test conducted include the granger causality test which according to Granger [9] is useful in determining whether

the selected independent variables could clearly predict the dependent variable. Similarly, the Chow test which tests the structural stability or effect of identified policies on the trend or behaviour of variables was expressly employed to determine if the selected tax reforms have significantly improved the federally generated internal revenue in Nigeria. Just as this present study, a series of data can contain a structured break for instance, CITA is 2007 (7 years pre and 8 years post reform period) while the breakpoint in SDA is 2004 (4 years pre and 11 years post reform period).

The model is thus specified as:

$$IGR = f(CIT) \quad (1)$$

$$IGR = f(SD) \quad (2)$$

Stating the explicit stochastic form of equation 1 and 2;

$$IGR = \delta_0 + \delta_1 CIT + \varepsilon_t \quad (3)$$

$$IGR = \lambda_0 + \lambda_1 SD + \varepsilon_t \quad (4)$$

Where

IGR = Federal Non-oil Internal Generated Revenue

CIT = Company Income Tax

SD = Stamp Duty Tax

ε_t = Error Term

Table 2 however showcases the nomenclature and definitions of the variables along with their labels and measurements.

4. Results and Discussions

The summary of the unit root test is shown in the table 3.

The result from Table 3 shows that company income tax is stationary at level, which implies that they are integrated at order zero, I (0), while stamp duty tax and federal non-oil generated revenue is not stationary at level, implying that it has a random walk. Data for the variables were therefore subjected to test for unit roots at 1st difference (see Table 4).

The result from Table 4 shows that CIT, Stamp Duty tax and federal non-oil generated revenue are stationary at first difference, which implies that they are integrated at order one, I(1).

Table 2. Definition of Variables

Variables	Labels	Definitions	Measurement
Company Income Tax	CIT	These are direct taxes imposed on companies by governments of identifiable jurisdictions. The taxes are usually levied on companies' incomes.	(N' Billions)
Stamp Duty	SD	A tax on legal documents such as those used, e.g., for the sale or purchase of shares or the conveyance of a property to a new owner	(N' Billions)
Non-oil Tax Revenue/Non-tax receipts	IGR	These are government revenue not generated from petroleum profit taxes.	(N' Billions)

Source: Compiled by Authors

Table 3. The Unit Root Test Result for the Selected Variables (at Levels)

	ADF (at level)	1%	5%	10%	Summary	Order of Integration
CIT	9.424	-2.728	-1.966	-1.605	Stationary	I (0)
SD	-3.224	-4.728	-3.759	-3.324	Non-Stationary	-
Non-oil IGR	2.336	-3.959	-3.081	-2.681	Non-Stationary	-

Source: Researchers' computation, 2020

Table 4. The Unit Root Test Result for the Selected Variables (at 1st Difference)

Variable	ADF Statistic	1% Critical value	5% Critical value	10% Critical value	Order of integration
CIT	-4.291	-2.754	-1.970	-1.603	1(1)
SD	-5.715	-4.800	-3.791	-3.342	1(1)
Non-oil IGR	-5.885	-4.057	-3.119	-2.701	1(1)

Source: The Researcher's Computation Using E-views 7.1

Table 5. Descriptive Analysis of CIT, PIT, SD, VAT and Non-Oil IGR:

	D(CIT)	D(SD)	D(NON_OIL IGR)
Mean	88.746	0.446	155.393
Maximum	220.000	3.300	347.100
Minimum	16.000	-3.800	30.000
Std. Dev.	67.868	1.483	100.641
Skewness	0.621	-1.085	0.578
Kurtosis	2.103	6.339	2.272
Jarque-Bera	1.468	9.917	1.166
Probability	0.479	0.007	0.557
Observations	16	16	16

Source: Researchers' computation, 2020

Table 6. Results of Granger causality tests of selected variables

Null Hypothesis:	Obs	F-Statistic	Prob.
CIT does not Granger Cause Non-oil IGR	16	0.120	0.037**
Non-oil IGR does not Granger Cause CIT		0.599	0.569
SD does not Granger Cause Non-oil IGR	16	0.258	0.041**
Non-oil IGR does not Granger Cause SD		20.535	0.050

Source: Researchers' computation, 2020

Table 7. Regression Result of CIT against Total Non- oil IGR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	85.805	44.081	1.946	0.071
CIT	1.895	0.068	27.756	0.000
R-squared	0.982	Mean Dep. Var..		1028.356
Adjusted R-squared	0.980	S.D. Dep. Var.		813.042
S.E. of Regress.	112.430	Akaike Info. Criter.		12.399
Sum -squared Resid.	176969.0	Schwarz Criter.		12.495
Log likelihood	-97.192	Hannan-Quinn Criter.		12.403
F-Stat.	770.420	Durbin-Watson Stat.		0.804
Prob(F-statistic)	0.000			

Source: Researchers' computation, 2020

The standard deviations of the operational data chosen are 67.86%, 1.48% and 101% for Company income tax, Stamp Duty tax and federal non-oil generated revenue respectively. Apart from the total non-oil revenue, other variables recorded standard deviations that were less than 100. The skewness and Kurtosis are contained in Jarque_Bera. Jarque_bera is used to test for normality; to know whether data are normally distributed. Jarque_Bera theory posits that, if probability value is less than 10% we accept the alternate (H₁) meaning that the data follows a normal distribution, otherwise, accept the null, meaning that they are not normally distributed. In this case, the respective prob. values are 0.479 for CIT, 0.007 for SD and 0.557 for total non oil revenue, thus implying that they are normally distributed since the p-values are less

than 10%.

Table 6 unveils a summary result of the granger causality estimates which suggests that a uni-directional relationship exists between CIT and total non-oil IGR with probability values below 10% significant level. This implies that CIT in the long run contributes/triggers significant change to total non-oil revenue component for the Nigerian economy. Also, stamp duty (SD) shows a uni-directional relationship with non-oil IGR. This implies that SD contributes significantly to non-oil revenue.

We ran the regression model by taking CIT and federal non-oil internally generated revenue (IGR) in Nigeria (2000-2015) as explanatory variable and explained variable respectively. The Ordinary Least Square estimates suggest that there is a positive linear and

significant relationship between CIT and non-oil revenue with coefficient value of 1.895. This implies that each unit change in CIT triggers 1.89 percent increase in non-oil revenue. The result shows an auto-regression problem as shown by the Durbin-Watson of 0.804. An auto-regressive method was used to correct this as shown on table 8.

The result in Table 8 shows an R² of 0.99 indicating a predictive ability of CIT on Total non-oil revenue at 99%. While regression coefficient (coeff.) has a positive statistically insignificant beta weight of .977 or 97.73%; p=.0.119. The Durbin-Watson has been corrected with a value of 1.758015 which falls within 1 to 3. Additionally, the F-statistics of 647.263 (prob = 0.000) shows a significant relationship between non-oil revenue and CIT.

However, since the hypothesis is to test the effect CIT on federal non-oil tax IGR in Nigeria, the chow test was

done after carrying out a pre and post reform regression model analysis. Based on the Chow-test computed in Table 9 there is no significant difference in model effect, that is, there is no structural change in the reform since the calculated value of 2.416 as shown in table 9 is lower than the F-distribution table of 3.862548 at F(2,12). We therefore accept the null hypothesis (H₀) and reject the alternate hypothesis (H₁) and conclude that the models are the same, that is, there is no significant structural change in pre and post implementation of CITA reform on federal non-oil IGR in Nigeria.

This therefore indicates that CIT Act of 2007 has not impacted significantly on non-oil revenues in Nigeria. Consequently, the null hypothesis suggests that the CITA's implementation has not significantly improved federal IGR in Nigeria is sustained and not rejected.

Table 8. Auto Regressive Corrective Regression Model Result of CIT against federal Non- oil IGR

Dependent Variab: TOTAL_NON_OIL IGR					
Method: Least Squares					
Convergence achieved after 76 iterations					
Variable	Coeff.	Std. Err.	t-Stat.	Prob.	
C	16023.50	370896.2	0.043	0.966	
CIT	0.977	0.582	1.677	0.119	
AR(1)	0.995	0.103	9.629	0.000	
R-squared	0.990	Mean Dep. Variab.		1088.860	
Adjusted R-squared	0.989	S.D. Dep. Variab.		803.430	
S.E. of regression	83.167	Akaike info. Criter		11.856	
Sum squared resid.	83001.76	Schwarz Criter.		11.998	
Log likelihood	-85.923	Hannan-Quinn Criter.		11.854	
F-statistic	647.263	Durbin-Watson Stat.		1.758	
Prob(F-statistic)	0.000				

Source: Researchers' computation, 2020

Table 9. Chow Test Result between CIT (2007) and Non-oil IGR

Chow Breakpoint Test: 2007			
Null Hypothesis: No Breaks at Spec. Breakpoints			
Varying-Regressors: All Eqn. Variab.			
Eqn. Sample: 2000- 2015			
F-Stat.	2.416	Prob. F(2,12)	0.131
Log Likelihood Ratio	5.414	Prob. Chi-Square(2)	0.066
Wald Stat.	4.832	Prob. Chi-Square(2)	0.089

Source: Researchers' computation, 2020

Table 10. Regression result of SD against non-oil IGR

Dep. Variab: TOTAL_NON_OIL IGR				
Method: Least-Squares				
Sample: 2000 – 2015				
Included obs.: 16				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	71.588	97.602	0.733	0.475
SD	236.239	18.927	12.481	0.000
R-squared	0.917	Mean Dep. Var.		1028.356
Adjusted R-squared	0.911	S.D. dep. Var.		813.042
S.E. of regression	241.663	Akaike Info. Criter.		13.929
Sum-Squared resid	817619.1	Schwarz Criter.		14.026
Log likelihood	-109.435	Hannan-Quinn Criter.		13.934
F-Stat.	155.783	Durbin-Watson (DW) Stat.		2.017
Prob(F-statistic)	0.000			

Source: Researchers’ computation, 2020

Table 11. The Chow Test Result between SD Act 2004 and Non-oil IGR

Chow Breakpoint Test: 2004			
Null Hypothesis: No breaks at specified breakpoints			
Varying Regressors: All equation variables			
Equation Sample: 2000 2015			
F-statistic	0.066	Prob. F(2,12)	0.936
Log likelihood ratio	0.175	Prob. Chi-Square(2)	0.916
Wald Stat.	0.132	Prob. Chi-Square(2)	0.936

Source: Researchers’ computation, 2020

The regression model is run by taking Stamp Duty and federal non-oil IGR in Nigeria (2000-2015) as independent variable and explained variable respectively. The regression model result in table 10 shows an R² of 91.75% (R²=.0.917) showing that the SD can predict IGR to the value of 91.75%. With regression coefficient (SD) has a positive statistically significant beta weight of 236.239; p=.0000. Also the DW-Stat. is 2 showing that there is no autocorrelation. The F-value shows a very significant relationship between SD and the total non-oil revenue; the pooled regression model is statistically significant F (2, 14) = 155.7833, R² = .9175; p=.000).

We additionally examined the effect of Stamp Duty on federal non-oil IGR in Nigeria. This is shown in the summarized chow test result (see Table 11) after carrying out a pre and post reform regression model analysis. Based on the Chow-test computed in Table 11, the obvious is that there is no significant difference in the models effect, that is, there is no structural change in the reform since the calculated value as shown in Table 11 is 0.066 which is less than the F-distribution table of 3.885. We therefore accept the null hypothesis (H₀) and reject the alternate hypothesis (H₁) and conclude that the models are the same; that is, there is no significant structural change in pool, pre and post implementation of Stamp Duty reform Act 2004 on federal non-oil tax IGR in Nigeria. This therefore indicates that Stamp Duties has no

significant impacts on the non-oil tax IGR in Nigeria. The null hypothesis is therefore sustained and not rejected.

Noticeably, the implementation of CITA has not significantly improved non-oil tax IGR of Nigeria as shown by the result of this study. This also is in contrast with the results of Madugba, Ekwe and Kalu [14] who found a positive and significant relationship between CIT and the country’s Consolidated Revenue.

Finally, the study shows an insignificant impact on the implementation of Stamp Duties Act, 2004. As earlier pointed, the Nigerian Government which ought to be a continuum has failed in putting in place effective tax reforms that will rake in adequate income and stabilise the economy. The future of the Nigerian economy is blurred; the rich appears to be getting richer while the poor are getting poorer by each passing day. The gap between the poor and rich is widening by the day. This can be traced to poor fiscal policy and implementation.

5. Conclusions and Recommendations

Following the findings of the previous section, it was concluded that the implementation of the selected tax reforms has not significantly improved the federal non-oil internally generated revenue in Nigeria since at every instance, the F-statistic was always lower than the

F-distribution. This therefore means that the major objective of tax reform which is to improve government IGR [16], was not achieved. Based on this premise, it is recommended that;

- i. In order to significantly improve the non-oil tax revenues in Nigeria through company Income tax, the federal government should marginally reduce the tax holidays and incentives granted to companies in order to boost or get more tax revenue from the increased profit of companies.
- ii. Effective policy pertaining to Stamp Duties should be put in place and there should be full implementation of the stamp duties act, 2004 *vis-à-vis* strict penalties for non-compliance. This will encourage compliance which will lead to improvement in revenue generation from stamp duties.

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