Tax Revenue, Capital Market Performance and Foreign Direct Investment in an Emerging Economy

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ABSTRACT

The study examines tax revenue, capital market performance and foreign direct investment (FDI) in Nigeria. The broad objective of this study is to find out the relationship between tax revenue, capital market performance and FDI in Nigeria. The study adopted a longitudinal research design and covers a period of 1994-2021. Secondary data were obtained from annual report and bulletins of the Central Bank of Nigeria. This study employed the ADF and Philips-Perron (PP) unit root test, panel Johansen cointegration test, VAR model, dynamic ordinary least square regression, full modified ordinary least regression and pairwise granger. The findings amongst others revealed that; value added tax has a bidirectional relationship with foreign direct investment in Nigeria; company income tax has no significant relationship with foreign direct investment in Nigeria; custom and exercise duty has a unidirectional relationship with foreign direct investment in Nigeria; stock market capitalization has no significant relationship with foreign direct investment in Nigeria. Based on the findings, the study recommended amongst others that policy makers should concentrate effort on long run policies that will stimulate capital market development in Nigeria, Also, a healthier and more robust friendly foreign investment policies should be created and maintained and the government should partners with foreign investors to enhance capital market development in Nigeria.

Keywords: Tax Revenue, Capital Market Performance, Foreign Direct Investment
JEL Classifications: G1,G2, G3

1. INTRODUCTION

Recently, foreign capital globalization, predominantly Foreign Direct Investment (FDI) influx has upsurge ominously in emerging markets because FDI has turned out to be one the foremost stable and predominant constituents of external funds that flows into a country (Adams, 2009). Economic theory gives an elucidation for the role of FDI in fast-tracking economic advancement of emerging markets. Contemporary economic advancement theories establish that FDI assumes a critical role in conveying technical advancement alongside with generating innovative concepts for ascertaining the pace at which the economy advances (Grossman and Helpman, 2019; Barro and Sala-I-Martin, 2002). FDI is also perceived as the utmost essential conduit through which sophisticated machineries can be conveyed to emerging markets (Acheampong, & Wiafe, 2013; Ade, Rossouw, & Gwatidzo, 2018; Findlay, 2000; Blomstrom, 2019).

Foreign direct investment (FDI) is documented to be a reagent for enhancing advancement and expansion, particularly in numerous emerging economies that have inadequate dimensions to support local venture and fund expansion in the elongated- term

(United Nations Conference on Trade and Development, 2020). Some scholars (Azam, & Ibrahim,2014; Brahamhatt and Dudush, 2006; Campos and Kinoshita, 2019) see FDI as a fundamental constituent of financial globalization because of the latent benefit derived by host countries. In recent times, FDI has move at a faster pace than international trade among nations (Adebisi, Oyatoye, & Arogundade, 2011; Agrawal, 2000, Blomstrom, & Kokko, 1998; Blonigen, 2005; Borensztein, Hills & Adams,1998).

Different schools of thought have tried to explain why FDI flows from specialized markets to emerging markets and are yet to give a definite answer to this vexing question. Claessens et al. (2019) opine that hypothetically, the association of FDI with performance of stock is still much uncertain. Some scholars argues that the association is corresponding whereas others suggest that there is a complimentary association between them. It is further argued that FDI tends to move faster to clans that are financially risky, financially unstable and institutionally weak, than low risk zone. Another vex question that have sort for answer over the years is - what drives FDI from specialized markets to emerging markets? Blonigen (2005) opines that the distribution of wealth and endowment of natural resources vary from country to country across the globe which implies that the attracting force that draw investors to commit their funds to host countries vary across board. Some scholars argue that financial policies of host country is a major attracting force of FDI that pulls potential investors. This argument is premise on the fact that good macroeconomic policies will create a peaceful environment and by extension a good atmosphere for business. The other schools of thought argue that specialized stock as a standalone factor attract foreign investors. These schools of thought perceive that FDI as a supernumerary that occurs in the stock souk to overawe the obstacles to financing via capital markets, under conditions where stockholders privileges are threatened.

Furthermore, other scholars argue that taxation is a predominant factor that determines the inflow of FDI into the host country. High taxes tend to scare away foreign investors. Glaister and Frecknall-Hughes (2018) argue that is taxes a substantial fundamental within the FDI process and its interface with corporate strategy but however has been grossly overlooked.

There has been endless contention over the decade that taxes are crucial dynamic considered by foreign investors in deciding the jurisdiction to location their investments. Jurisdiction with unduly high taxes will attract fewer foreign investors (Akinwunmi, 2017; Okoi&Edame, 2020; Akinbobola, & Saibu 2014; Ali, 2014; Brakman, 2006). Some extant studies (Becker, Fuest & Riedel 2012; Rochananonda 2006; Bénassy-Quéré, Fontagné, & Lahrèche-Révil 2005) argue contrary popular opinion that FDI actual influences taxes and not the other way round. While others further argue that stock market as an institution has undeniable influence on FDI. They argue that countries with specialized markets are bound to attract more foreign investors that countries that have weak stock market structure. Based on these argument, it is not clear to whether tax that influences FDI or FDI influences Tax. The direction of the relationship between stock market and FDI is also unclear. The aforementioned constitute the motivation for this study.

Governments of emerging economies have over the year sort for best ways to attract Foreign Direct Investment (FDI) into their countries because of influx of funds that come along with it. Accrued benefits attached to it has made many countries both large and small to remove natural barriers placed on FDI in recent times. Nations are slackening restrictions on FDI as they realize its affirmative influence on economic advancement and it capability in whittling down poverty. Over the past thirty years many nations have radically removed barriers on FDI and have gone ahead to promulgate policies that will enhance soft participation of foreign investor which will lead to economic advancement. The paradigm shift from the arm chair has made FDI a topic concern in finance and accounting research in recent times. Several works have been done on FDI in both specialized and emerging markets of the world (Arčabić, Globan, & Raguž, 2020; Bunescu, & Comaniciu, 2014 Saidu, 2015; Buckley, Clegg & Wang, 2002). The contentions over the factors that influence FDI are endless and unresolved. Many researchers looked at the subject from various standpoints. For instance, some empirical studies reveal that taxation negatively influence FDI (Andreas,,2006; Tabasam, 2014). Various models were constructed in prior studies to ascertain the elements that influence FDI in both specialized and emerging economies (Asiedu, 2004; Bunescu, & Comaniciu 2014; Carkovic, & Levine, 2002; Vernon, 1966). Some the studies found that macroeconomic factors negatively influence FDI while other studies reveal that host economy's real wage rates, foreign, exchange rates, land and property rents, fuel costs, indigenous input costs, and capital market activities have strong influence on FDI (Aslam, 2015; Caves, 1996; Babatunde &Shakirat, 2012; Chenery, & Stout, 1986; Ezeoha, Ogamba, & Okereke-Onyiuke, 2009; Saidu, 2015; Farag & Izzat, 2017). Some prior studies reveal that capital market size has positive effect on FDI (Adewumi, 2006; Claessens, Demirgüç-Kunt & Huizinga, 2019; De Jager, 2004; DeMello, 1997; Balasubramanyan,1996; Balıkçıoğlu, Balıkçıoğlu, Dalgıç, Fazlıoğlu, 2016; Dalgıç, & Fazlıoğlu, 2016; Basheer, Ahmad & Hassan, 2019; Bayar, & Ozturk, 2018; Erdal-Demirhan, & Masca, 2018). To the best of researcher's knowledge, no study in the Nigerian context has looked at the bidirectional relationship between FDI, tax revenue and capital market development. The aforementioned constitute the gap that this study intend to fill.

2. METHODOLOGY

2.1. Source of Data Collection
Data will be obtained from secondary sources. The secondary data will be obtained from annual report and bulletins of the Central Bank of Nigeria. The time frame for this research study will be 1994-2021.

2.2. Model Specification
The model will be underpinned to the work of Adeolu (2007). The model will however be adapted in this study. Thus:

FDI =f (CIT, CED, VAT)

Model 1

FDI =f (CIT, CED, VAT)
This can be written mathematically as:
FDI = β0 + β₁CITit + β₂CEDt + β₃VATit + et
Appriori Expectation: β₁; β₂, β₃ < 0
Where:
FDI is Foreign Direct investment,
VAT is Value Added Tax,
CIT is Companies Income Tax,
CED is Customs and Excise Duties Tax,

Model 2

FDI = f (VOL, CAP, MTO)
Thus, linear equation we obtain:
FDI t= β0 + β₁VOL$_{it}$ + β₂CAP$_{it}$ + β₃MTO$_{it}$ + et
Appriori Expectation: β₁; β₂, β₃, β₄ > 0
Where:
FDI = Foreign Direct Investment;
CAP = Market Capitalization;
MTO = Market Turnover
VOL = Volume of Transaction (This measures the market size);
t = represent the time dimension
β0 = Intercept; β1-β4, = Parameter to be estimated, and e = Stochastic or Disturbance term
The measurement and operationalization of variables are presented in Table 1.

2.3. Estimation Techniques

This study employed the ADF and Philips-Perron (PP) unit root test, panel Johansen cointegration test, VAR model, dynamic ordinary least square regression, full modified ordinary least regression and pairwise granger. They are discussed as follows:

Model 1

$$FDI_t = \sum_{(k-i)}^{m} \theta_{1.1,j.k} FDI_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} VAT_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} CIT_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} CED_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.5,j.k} CEXRT_{t-K} + \delta ECM(-1) + U_{it}, \tag{1}$$

$$VAT_t = \sum_{(k-i)}^{m} \theta_{1.1,j.k} FVAT_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} FDI_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} CIT_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} CED_{t-K}$$
$$+ \delta ECM(-1) + U_{it}, \tag{2}$$

$$CIT_t = \sum_{(k-i)}^{m} \theta_{1.1,j.k} CIT_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} VAT_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} FDI_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} CED_{t-K}$$
$$+ \delta ECM(-1) + U_{it}, \tag{3}$$

$$CED_t = \sum_{(k-i)}^{m} \theta_{1.1,j.k} FDI_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} VAT_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} CIT_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} FDI_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.5,j.k} CEXRT_{t-K} + \delta ECM(-1) + U_{it}, \tag{4}$$

Model 2

$$FDI_{it} = \sum_{(k-i)}^{m} \theta_{1.1,j.k} FDI_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} CAP_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} MTO_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} VOL_{t-K}$$
$$+ ECT(-1) + U_{it}, \tag{5}$$

$$MTO_{it} = \sum_{(k-i)}^{m} \theta_{1.1,j.k} FDI_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} MTO_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} CAP_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} VOL_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.4,j.k} \Delta ETR_{t-K} + ECT(-1) + U_{it}, \tag{6}$$

$$CAP_{it} = \sum_{(k-i)}^{m} \theta_{1.1,j.k} CAP_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} MTO_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} FDI_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} VOL_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.4,j.k} \Delta ETR_{t-K} + ECT(-1) + U_{it}, \tag{7}$$

$$VOL_{it} = \sum_{(k-i)}^{m} \theta_{1.1,j.k} VOL_{it} + \sum_{(k-i)}^{m} \theta_{1.2,j.k} CAP_{t-K}$$
$$+ \sum_{(k-i)}^{m} \theta_{1.3,j.k} MTO_{t-K} + \sum_{(k-i)}^{m} \theta_{1.4,j.k} FDI_{t-K}$$
$$+ ECT(-1) + U_{it}, \tag{8}$$

Where:
the term Δ denotes first differences; $\theta_{ij,}$ (j = 1,2,3) represents the fixed country effect; k (k = 1,…,m) is the optimal lag length determined by the Schwarz Information Criterion; and i,t 1 $ECT_{i,t-1}$-isthe estimated lagged error correction term derived from the long-run cointegrating relationship.

Where μt is the error term, ECM (−1) is the error correction term, captures the long run impact. The short run effects are captured through the individual coefficients of the differenced terms (α) while the coefficient of the ECM variable contains information about whether the past values of variables affect the current values. The size and statistical significance of the coefficient of the ECM measure the tendency of each variable to return to the equilibrium. A significant coefficient implies that past equilibrium errors play a role in determining the current outcomes.

2.4. Variance Decomposition

Variance decomposition explains the manner in which one standard deviation shock creates variations in arithmetic terms from one period to another among the series. In this way, variance decomposition demonstrates the forecast error of a variable. In proportions attributed to innovations (shocks), each variable in the system, including its own, has internally induced innovations (Wickremasinghe, 2011). In a simple linear equation, for any

Table 1: Measurement and operationalization of variables

Variables	Abbreviations	A priori	Measurement
Value added tax	VAT	+	
Company Income Tax	CIT	+	
Customs and Excise Duties Tax	CED	+	
Foreign Direct Investment	FDI	+	Volume of money injected into Nigeria
Market Capitalization	CAP		The assumption was that it measures the overall market size of the stock market by mobilizing capital and diversify risk on an economy-wide basis hence adopting (Demirgue-Kunt and Levine, 1996; Levine and Zervos, 2018) approach
Market Size	MSZ		Volume of transactions
Market Turnover	MTO		Numbers of deeds

Table 2: The unit root test for the variables at 5% sig level with no trend

Variable	ADF value level	Critical value	ADF value (I)	Critical value @5%
FDI	1.572859	−3.012363	−5.813911	−5.81391
CIT	5.863781	3.603202	−5.187528	−2.976263
CED	2.966212	−2.976263	−4.125406	−3.595026
VAT	5.271801	−3.012363	−5.030919	−3.644963
VOL	−2.598459	−2.976263	−4.965525	−3.603202
CAP	−2.502030	2.976263	−6.869678	3.595026
MTO	−2.457491	−2.976263	−5.348964	−3.595026
The F unit root test for the variables at 5% sig level at intercept				

Source: Researcher's computation (2022). Significance * @5%

change in *x* at time *(t)* there is a corresponding change in x as a dependent variable.

3. RESULTS

3.1. Panel Unit Root Test Results

Unit root test null hypothesis assumption is on the premise that is all sequence are not static, while the alternative hypothesis presumes that some of the sequence are static.

From Table 2, time series of FDI, CIT, CED, VAT, VOL, CAP and MTO are not stationary at level variance as portrayed by the absolute values of ADF lower than critical values the 5% ADF critical values signifying that the variables are joined of order one. In additional, to affirm the stationary status of the variables ADF test was performed with trend. The results for ADF at 1st difference reveals that FDI, CIT, CED, VAT, VOL, CAP and MTO remained static at first difference since the real values of ADF respondent critical values. The Unit test reveals that there I(I) and I(0) of the supplementary regressors, therefore the Auto Regressive Distributive Lag (ARDL) testing could be continued.

3.2. Co-integration

When evaluating variable for co-integration, the VAR model with dual lags, as recommended by AIC and HQIC is considered. The work employed a Panatela principle in order to fix the suitable limitations in the model. The study starts by approximating dualistic models. For these models we go from the utmost limiting factor, which includes delimiting constant to the minimum limiting factor which comprises a delimiting trend in the model. Trace statistics and critical value are placed side by side until null hypothesis is not retained. The outcomes of the estimating model are displayed in Table 3.

The key of co-integration test lies in selecting proper form of co-integration test and lag order. Co-integration relationship between

Table 3: Co-integration rank test (trace)

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE (s)	Eigen value	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.321861	90.49835	54.07904	0.0000
At most 1*	0.212360	48.93925	35.19275	0.0009
At most 2*	0.157181	23.39678	20.26184	0.0179
At most 3	0.046540	5.099432	9.164546	0.2727

Source: Researcher's computation (2023)

variables. VAR model is generally tested with the Johnsen (1988) and Juselius (1990) method. Here the selected sequences are linear trend terms, and then the test form of co-integration equation is only intercept. Johansen co-integration test on FDI, CIT, CED, VAT, CAP, VOL and MTO show that, in both trace and maximum Eigen value test results are less than 0.05, hence a positive relationship exist. This means that there are stable and long-term equilibrium relationships among the variables. On the premise of the existence of co-integration relationships, VAR modeling can be further conducted.

3.3. Pairwise Granger

The outcome of this study reveals that at 5% only of the some of the variables do not Granger. The result shows that CIT has no significant relationship with FDI (since, P = 0.999 > 0.05 and 0.846 > 0.05). This infers that rise in FDI does not necessarily lead to rise CIT. The result further shows that Custom and excise duty has a bidirectional relationship with FDI (since P = 0.0023 < 0.05). The result reveal that VAT has a bidirectional relationship with (since P = 0.0038 < 0.05 and P = 0.0025 < 0.05). This implies upsurge in VAT will lead increase rise in value of FDI. The result reveal that CED has no significant relationship with CIT while CIT on the other hand does not Granger Cause CED. This result further, revealed that has VAT no significant relationship with CIT and CIT on the other hand has no significant does not granger cause VAT.

Finally, the result revealed that VAT has no significant relationship with CED and this vein CED does not Granger Cause VAT since P = 0.117 > 0.05 and P = 2.000 > 0.05. This finding implies that upsurge in VAT does not necessary translate to rise in custom and excise duty.

The outcome for model II reveals the causality among capital market variables and foreign direct investment at 5% (Table 4). The result shows that volume of capital market trade has no significant relationship with FDI (since, P = 0.7221 > 0.05 and 0.9969 > 0.05). This infers that rise in FDI does not necessarily lead to rise VOL.

The result reveal that MTO does not have significant relationship with FDI while market turnover in the same vein has no significant relationship with FDI (since 0.9895 > 0.05 and P = 0.9996 > 0.05). This implies upsurge in MTO will not necessarily lead increase rise in value of FDI vice versa. The result reveal that CAP does have significant relationship with volume of stock market size and in the same vein VOL has no significant relationship with CAP (since P = 0.8408 > 0.05 and P = 0.9950 > 0.05). This result further, revealed that MTO has no significant relationship with Cause VOL and on the contrary VOL has a significant relationship MTO (since P = 0.6766 > 0.05 and P = 0.0005 < 0.05).

Finally, the result revealed that has CAP has no significant relationship with MTO and in the same MTO has no significant relationship with CAP since P = 0.9451 > 0.05 and P = 0.5077 > 0.05 (Table 5). This finding implies that upsurge in market capitalization does not necessarily translate to rise in market turnover.

Table 4: Pairwise Granger (Model II)

Null Hypothesis	F-statistic	P-value
VOL does not Granger Cause FDI	0.32663	0.7221
FDI does not Granger Cause VOL	0.00308	0.9969
CAP does not Granger Cause FDI	0.05784	0.9438
FDI does not Granger Cause CAP	0.22602	0.7981
MTO does not Granger Cause FDI	0.0105	0.9895
FDI does not Granger Cause MTO	0.0036	0.9996
CAP does not Granger Cause VOL	0.17373	0.8408
VOL does not Granger Cause CAP	0.00499	0.9950
MTO does not Granger Cause VOL	0.39209	0.6766
VOL does not Granger Cause MTO	8.21944	0.0005
MTO does not Granger Cause CAP	0.05646	0.9451
CAP does not Granger Cause MTO	0.68238	0.5077

Source: Researcher's computation (2023)

VAR result reveals that FDI has a negative impact on volume of trade (VOL) in lag 2 as depict in the short and long-run, at both 1% and 10% as depicted by t = [−3.05262]. The negative sign connotes that FDI has a negative relationship with VOL in the long run. The result also shows that a unit increase FDI will lead to −1.760005 decrease in VOL.

The VAR result reveals that FDI has a significant impact on market capitalization (CAP) as depict in the short and long-run, at both 1% and 10% as depicted t = [0.40047] while on the other hand CAP has a negative impact on FDI in the long run at both 1% and 10% as depicted by t = [−3.45065]. The result also shows that a unit increase in FDI will lead to an increase in CAP by 0.214822.

The result further reveals that FDI has no significant relationship with market turnover (MTO) in long and short run at 1% as depict by t = [−0.43544]. The negative sign connotes that FDI negatively influence MTO. On the other hand, the result reveals that MTO has no significant impact on FDI as depicted by t = [−4.79751]. The result also shows that a unit increase in FDI will lead to −0.000523 decrease in MTO.

VAR result for model II reveals that FDI has no significant impact on Company Income Tax (CIT) in the short and long-run, at both 1% and 10% as depicted by t = [0.47396]. The result also reveal that FDI has no significant impact on CIT in the long run (Table 6). In this vein the result reveal that CIT has no significant impact on FDI at both 1% and 10% as depicted by t = [0.13539].

The VAR result reveals that FDI has no significant impact on CED in the short and long-run, at both 1% and 10% as depicted t = [−3.7415] while on the other hand CED has no significant impact on FDI in the long run at both 1% and 10% as depicted by t = [−0.7558]. The result also shows that a unit increase in CED will lead to a decrease in FDI by −0.000270.

The result further reveals that FDI has a significant impact on value added tax in long and short run at 1% as depict by t = [1.20073]. This connotes that it is probable for FDI to influence VAT in the foreseeable future. On the other hand, the result reveals that VAT has no significant impact on FDI as depicted by t = [−4.79751]. The result also shows that a unit increase in FDI will lead 39.29087 increase in VAT, while a unit increase in VAT will reduce FDI by −55.28257.

Table 5: VAR result Model 1

	FDI	VOL	CAP	MTO
FDI(−2)		−1.760005	0.214822	−0.000523
		(0.21003)	(0.53642)	(0.00120)
		[−3.05875]	[0.40047]	[−0.43544]
VOL(−2)	−16.82005		8646.807	0.356596
	(319.632)		(6221.68)	(3.09914)
	[−3.05262]		[1.38979[	[0.11506]
CAP(−2)	0.508955	1.91005		7.41006
	(0.01709)	(6.40005)		(0.00017)
	[−3.45065]	[0.29974]		[0.04471]
MTO(−2)	−55.28257	−0.123050	−1631.732	
	(69.3187)	(0.25881)	(1349.30)	
	[−4.79751]	[−0.47545]	[−0.20932]	

Source: Author's computation (2023)

Table 6: Vector estimation correction model

	FDI	CIT	CED	VAT
FDI(−2)		−94.3569	−27.47255	39.29087
		(621.057)	(37.0498)	(32.7224)
		[0.47396]	[−3.7415]	[1.20073]
CIT(−2)	2.35006		−0.00165	−0.003714
	(1.7005)		(0.00602)	(0.00532)
	[0.13539]		[−0.27447]	[−0.69828]
CED(−2)	−0.000270	0.033264		−0.033264
	(0.00036)	(2.07891)		(2.07891)
	[−0.75585]	[−0.01600]		[−0.01600]
VAT(−2)	−55.28257	−0.123050	−1631.732	
	(69.3187)	(0.25881)	(1349.30)	
	[−4.79751]	[−0.47545]	[−0.20932]	

Source: Author's computation (2023)

Table 7: Model 1

Null Hypothesis	F-Statistic	Prob.
CIT does not Granger Cause FDI	0.00080	0.9992
FDI does not Granger Cause CIT	0.16750	0.8460
CED does not Granger Cause FDI	6.46962	0.0023
FDI does not Granger Cause CED	0.36359	0.6961
VAT does not Granger Cause FDI	5.89068	0.0038
FDI does not Granger Cause VAT	6.36140	0.0025
CED does not Granger Cause CIT	0.07335	0.9293
CIT does not Granger Cause CED	0.06627	0.9359
VAT does not Granger Cause CIT	0.11988	0.8872
CIT does not Granger Cause VAT	0.58918	0.5566
VAT does not Granger Cause CED	2.18290	0.1179
CED does not Granger Cause VAT	21.4516	20008

Source: Researcher's computation (2022)

3.4. Test of Hypotheses

The research hypotheses were tested using the results from Pairwise Granger extracted from Table 7 as shown below:

3.4.1. Test of hypothesis one
Step 1: Restatement of the Research Hypothesis
Ho_1: There no significant relationship between Value Added Tax and Foreign Direct Investment in Nigeria.

Step 2: Decision Rules
Decision Rule 1: Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision
The result (Table 7) revealed that there is a bidirectional relationship between with value added tax and FDI since for FDI and VAT stood at $P = 0.0038 < 0.05$ and $P = 0.0025 < 0.05$ respectively hence null hypothesis of *no significant relationship between Foreign Direct Investment (FDI) and VAT in Nigeria is not retained.*

3.4.2. Test of hypothesis two
Step 1: Restatement of the Research Hypothesis
Ho_2: Company Income Tax has no significant relationship with Foreign Direct Investment in Nigeria.

Step 2: Decision Rules
Decision Rule 1:Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision
The result (Table 7) revealed that FDI has no bidirectional or unidirectional relationship with CIT since P-value for CIT and FDI stood at $P = 0.999 > 0.05$ and $0.846 > 0.05$ respectively hence null hypothesis *of no significant relationship between Foreign Direct Investment (FDI) and company income tax in Nigeria is retained.*

3.4.3. Test of hypothesis three
Step 1: Restatement of the Research Hypothesis
Ho_3: Custom and exercise duty has no significant relationship with Foreign Direct Investment in Nigeria.

Step 2: Decision Rules
Decision Rule 1: Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision
The result (Table 7) revealed that FDI has no significant relationship with custom and excise duty since P-value for CED $P = 0.0023 < 0.05$. Hence hypothesis *of no significant relationship between Foreign Direct Investment (FDI) and custom and excise in Nigeria is retained.* We thus conclude that there is a unidirectional relationship between Custom and excise duty and FDI in Nigeria.

3.4.4. Test of hypothesis four
Step 1: Restatement of the Research Hypothesis
Ho_4: Stock market capitalization has no significant relationship with Foreign Direct Investment in Nigeria.

Step 2: Decision Rules
Decision Rule 1: Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision
The result (Table 7) revealed that there is neither unidirectional nor bidirectional relationship between with value added stock market capitalization and FDI since for FDI and CAP stood at $P = 0.9438$ and $P = 0.7981$ respectively hence the null hypothesis of *no significant relationship between Foreign Direct Investment (FDI) and CAP in Nigeria is retained*

3.4.5. Test of hypothesis five
Step 1: Restatement of the Research Hypothesis
H5: Stock market turnover has no significant relationship with Foreign Direct Investment in Nigeria.

Step 2: Decision Rules
Decision Rule 1: Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision
The result (Table 7) revealed that FDI has no bidirectional or unidirectional relationship with stock market turnover since P-value for CIT and FDI stood at (since $0.9895 > 0.05$ and $P = 0.9996 > 0.05$ respectively hence null hypothesis *of no significant relationship between Foreign Direct Investment (FDI) and stock market turnover is income tax in Nigeria is retained.*

3.4.6. Test of hypothesis six
Step 1: Restatement of the Research Hypothesis

Step 2: Decision Rules
H_6: Stock market size has no significant relationship with Foreign Direct Investment in Nigeria.

Decision Rule 1: Reject the null hypothesis if the P-value is less than the chosen level of significance (0.05).

Step 3: Decision

The result (Table 7) revealed that FDI has no significant relationship with stock market size since P-value for FDI and VOL stood at $P = 0.8408 > 0.05$ and $P = 0.9950 > 0.05$ respectively. Hence hypothesis *of no significant relationship between Foreign*

Direct Investment (FDI) and stock market size in Nigeria is retained. We thus conclude that there is a neither unidirectional nor bidirectional relationship between stock market size and FDI in Nigeria.

4. DISCUSSION OF FINDING

This study used macroeconomic variables for 27 years to ascertain the relationship among, FDI, tax revenue and capital market development. The result shows that CIT has no significant relationship with FDI. This result is line with *a priori* expectation. The result further shows that Custom and excise duty has a unidirectional relationship with FDI. This implies that increase in custom and excise duty will lead to significant increase in FDI. This result is in line with *a priori* expectation.

The result reveal that VAT has a bidirectional relationship with FDI. This implies upsurge in VAT will lead increase rise in value of FDI. This result is in line with this result is in line with *a priori.*

The result reveal that CED has no significant relationship with CIT. CIT also has no significant impact on Cause CED this result is line with *a priori* expectoration. This result further, revealed that has VAT no significant relationship with CIT and CIT on the other hand has no significant or does not granger cause VAT. The result revealed that VAT has no significant relationship with CED and this vein CED has no significant impact on VAT this result is line with *a priori*. This finding implies that upsurge in VAT does not necessary translate to rise in custom and excise duty.

The result shows that volume of capital market trade has no significant relationship with FDI. This result is line with Soumyananda (2019) which found that size of capital market has no significant impact on foreign direct investment. This result is also in line with Umar et al. (2015) whose findings revealed that size of capital market has no significant impact on foreign direct investment. This result is at variance with Arikpo and Ogar (2018) whose findings revealed that there is a positive relationship between capital market size and foreign direct investment.

This result suggests that rise in FDI does not necessarily depend on the size of the capital market. The result further shows that market capitalization does not have has no significant impact on FDI and vice versa. This result is line with Umar et al. (2015) whose findings showed that there is no significant relationship between stock market capitalization and foreign direct investment. However, the result is at variance with Isah (2012) whose findings showed that there is a positive relationship between stock market capitalization and foreign direct investment.

Additionally, the result reveal that MTO has no significant impact on FDI while market turnover in the same vein has no significant impact on FDI. This result is line with *a priori* expectation. However, the result is at variance Orji and Ogbuabor (2018) whose findings reveals that there is a positive relationship between stock market turnover and foreign direct investment. This implies upsurge in MTO will not necessarily lead increase rise in value of FDI vice versa.

The result further reveal that FDI has no significant impact on stock market capitalization in the same vein stock capitalization has no significant impact on FDI. Finally, this result revealed that MTO has no significant impact on stock market size but on the contrary market size has a significant on Market turnover.

5. CONCLUSION

Foreign Direct Investment as a growth-enhancing component has received great attention of developed countries in general and less developed countries in particular in recent decades. It has been a matter of great concern for many scholars that how FDI affects many macroeconomic variables of host nation. This aim objective is to ascertain the relationship among foreign direct investment, capital market development and tax revenue. The result revealed that foreign direct investment has a bidirectional relationship VAT. This result suggests that more foreign investment inflow into Nigeria attract more value added tax. This result also suggests that most of the foreign investments are channeled into production of goods which will attract value added tax in the long run. The result further reveal that custom excise has a unidirectional relationship with foreign direct investment. This implies that inflow of foreign direct investment has significant impact on custom and excise duty. This study suggests that some of the foreign capital inflow come in form of assets that attract custom duty. This might be the reason for the unidirectional relationship between foreign direct investment and custom duty. The result revel that company income tax has no significant relationship with foreign direct investment in Nigeria. The study also concluded that when fiscal policy leads to decrease in tax, more foreign investors will be attracted into the country.

Additionally, the result reveal that capital market capitalization has no significant relationship with foreign direct investment in Nigeria. The result also reveals that stock market capitalization.

Has to significant relationship with FDI in both long run and in the shot. This infers that increase in FDI does translate to increase in stock market capitalization. The result also reveals that upsurge in capital does significant influence the volume of FDI inflow into Nigeria in both in the short and long run. The result also reveal that FDI has no significant relationship with capital market size. The suggest that inflow FDI into Nigeria does not have emblematic relationship with the volume of transactions in the Nigerian capital market. The result also revealed that size of capital market does not determinant the volume of FDI that flows into Nigeria. Finally, the result reveal that capital market turnover has no significant relationship with FDI. The result suggest that foreign direct investment does not significant influence stock market turnover in Nigeria.

Based on the results, the study recommends that policy makers should concentrate effort on long run policies that will stimulate capital market development in Nigeria. Also, the financial institutions should be strengthen and a healthier and more robust friendly foreign investment policies should be created and maintained. The study also recommends that government should partners with foreign investors to enhance capital market development.

This study also recommends that researchers who want to veer into this area of study should look at FDI and government revenue: A cross country study.

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