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EMPIRICAL ANALYSIS OF AGRICULTURAL FOREIGN DIRECT INVESTMENT ON CAPITAL MARKET PERFORMANCE IN NIGERIA (1981-2018)

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ABSTRACT: *There is a widespread perception that Foreign Direct Investment (FDI) aids economic growth in Nigeria evident by various contributions made by researchers on this phenomenon, but these attendant benefits must be transmitted through one of the viable real sectors, and one of such sectors is the agricultural sector. Understanding the linkage between the flows of foreign direct investment to agricultural sector as if affects capital market becomes imperative since the capital market enhances financial stability in the country. Using descriptive analysis, Augmented Dickey-Fuller (ADF), parsimonious error correction model, this paper therefore examined the effect of agricultural foreign direct investment on capital market performance in Nigeria from 1981 -2018. Basically data used in this study are exchange rate, trade openness, agricultural foreign direct investment and total market capitalization sourced from Central Bank of Nigeria(CBN) statistical bulletin 2018, The result obtained shows that the inflow of FDI to agricultural sector does not follow a regular pattern as agricultural FDI has long run positive relationship with capital market performance, exchange rate has negative relationship with the explained variable, trade openness also maintained a slow but positive relationship with capital market performance. The study concluded that there exist relationship between the phenomenons of the study, based on these findings, it is recommended that there is need for the government to device several means that would motivate the foreign investors to diversify their investment from oil sector to the agricultural sector since it has a positive influence on the capital market performance. Secondly, government needs to redesign the existing exchange rate policy and ensure full implementation of policy that would revive the value of our local currency.*

KEYWORDS: foreign direct investment, agricultural sector, exchange rate, capital market performance.

INTRODUCTION

Successive Government in Nigeria is yearning for inflow of Investment from other countries because of its perceived attendant benefits that could be derived, these benefits sited in : Johnny, N., Timipere, E. T., Krokeme, O., &Markjackson, D. (2018) on the Impact of Foreign Direct Investment on Unemployment rate in Nigeria (1980-2015) their study revealed positive and significant relationship between capital formation and unemployment rate in Nigeria. Based on the findings, the study recommends that, government should implement policies that will

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attract foreign investors to Nigeria in order to make more investments and should also ensure that all resources for productive activities are fully employed before going into any form of savings. These could be why different regime of government Investment in critical economic sector is on the high side to attract these inflows of Investment. Omodero&Ekwe (2016) defines foreign direct Investment as the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. more so, foreign direct Investment could either be horizontal or vertical. Wholly or partly owned by foreign National in the country of where the company operates these Investment could be in different critical economic sector. Amidst various Investment opportunities available in the country, government policy could also encourage these foreigners to invest, one of these sectors available is the Agriculture sector. Investment in the agricultural sector do not only help in economic growth but also the capital market, in that funds can be raised from the capital market to fund project in other sector because a sound capital market assist in allocating the nation's real and financial resources between various active sector in the economy. Ideally the capital market gives an idea of the state of health of the economy it also measures the stability of the economy with regard to the extent to which economic activities can rely on it. theorist have also proposed the need for foreign direct investment and the Agricultural sector is not exceptional both at the domestic and foreign direct investment environment For example, Internalisation Theory postulated by Buckley and Casson (1976) shows that multinational companies arranges their inner events in such a way that they can benefit from prospects before them to exploit. To them they firmly believe in this theory that Foreign Direct Investment can increase the profitability of the firms in an imperfect market situation

Statement of Problem

Various Studies that have attempted to empirically provide linkage on the impact of FDI in the agricultural sector of Nigeria. The question that then comes to mind is; what is the effect of agricultural foreign direct investment to the capital market performance in Nigeria owing to the fact that the agricultural sector is one sector that has numerous advantages if properly annexed. This study, with the aid of empirical models, intends to bridge this gap by examining the relationship between agriculture FDI, and capital market performance in Nigeria. Hence, our objective is, to within the Ordinary least square environment, evaluate and the relationship between the levels of productivity in the agricultural sector in relation to the amount of foreign direct investment that has been obtained in the sector. We use agriculture FDI as well as other economic variables such as exchange rate, trade openness and Total market capitalization in Nigeria as parameters for our study. More so, Abubakar &Yunusa (2018) examines the impact of foreign direct investment (FDI) on stock market development in Nigeria using annual data from 1981 to 2016. The variables such as stock market development proxied by market capitalization, foreign direct investment, exchange rate, inflation rate and gross domestic savings were used in the study. The study found that foreign direct investment has positive and statistically insignificant effect on stock market development. Exchange rate and gross domestic savings were positive and statistically significant to stock market development, while inflation rate has insignificant negative influence on stock market development in Nigeria for the period under the study. While

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Abdul-Aziz, Mustapha and Osman (2015) examined the impact of FDI on the performance of the agricultural sector in Ghana from 1980 - 2013 using Johansen cointegration test. The study found that FDI negatively impacted on the agricultural sector productivity in the long run but with positive relationship in the short run. Depreciation of the cedi negatively impacted on the growth of the agricultural sector in the long run. Trade openness had positive and significant long run impact on the agricultural sector. Cross country and country specific studies has shown different effect of foreign direct investment on capital market performance these unresolved issues found in these studies base on their conclusion on effect of fdi on capital market has necessitated further studies of foreign direct investment and capital market performance in Nigeria

Objectives of the Study

The main objective of this study is to determine the effect of agricultural foreign direct investment on capital market performance in Nigeria from 1981 to 2018. Other specific objectives of the study are as follows:

1. To examine the effect of agricultural foreign direct investment on stock market performance in Nigeria.
2. To examine the effect of trade openness on stock market performance in Nigeria.
3. To determine the effect of exchange rate on stock market performance in Nigeria.

Research Questions

Based on the objectives of the study, the following research questions would be formulated:

1) To what extend does agricultural foreign direct investment effect stock market performance in Nigeria?
2) Is there any effect of trade openness on stock market performance sets in Nigeria?
3) Does exchange rate have any effect on stock market performance in Nigeria?

Research Hypotheses

The following research hypotheses will be formulated as:

H_{O1}: Agricultural foreign direct investment does not have any positive and significant effect on the capital market performance in Nigeria.

H_{O2} Trade openness does not have any positive and significant effect on capital market performance in Nigeria.

H_{O3}: Exchange rate does not have any significant effect on capital market performance in Nigeria.

Significance of the study

This study is important because understanding the linkage between Foreign Direct Investment flows to the agricultural sector and performance in the capital market is very important, since the capital market assist in raising fund which stimulates growth and development of Nigerian economy more so, to identify the policy devices that may be engineered to maximize both inflows and gains of FDI into the agricultural sector.

This work is significant not only to the academia but to policy makers in that it will profess policy solutions to the economy and the capital market in Nigeria. It will also provide insight to investor in the agricultural sector.

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Organization of the Study

The remaining part proceeds as follows: section two contains review of some relevant literatures, section three describes methodology; section four contains a detail on results of data analysis and discussion while the final section, section concludes the study.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Foreign Direct Investment

Sebastian, (2010) stressed the element of control in his definition of foreign direct investment as "investment in a foreign country where the investing party that is, corporations, firms and so on retain control over the investment. The heart of any Foreign direct Investment is control". According to International Monetary Fund (IMF), Foreign direct Investment is defined as "investment that is made to acquire a lasting business in an enterprise's operation on economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprises". Essentially, the functions of capital market includes the promotion of liquidity and safety of financial assets in order to encourage saving and investment; ensuring a more fund allocation of resources by equating the demand and supply of loanable funds; enabling the transfer of funds from one sector or country to another for economic or commercial growth and enhancing successful implementation or monetary and indigenization policy (Adeusi, 2000).

Agriculture Foreign Direct Investment?

Capital Market Performance:

Capital market is a subset of financial market that deals with the mobilization and channelling of long-term funds for investment purposes by bringing together economic units requiring funds and economic units desirous of parting with funds for relatively long period of time. It is a framework of institutions that arrange for long term financial instruments entailing shares debentures stocks and mortgages (Adeusi, 2000).

Foreign Direct Investment and Government Intervention in Nigeria

The Nigerian Government has introduced many programmes to boost Foreign Direct Investment in agriculture sector, tax incentives are granted to new industries deemed beneficial for the economic development of the country and employment of its workforce allowances facilitating capital investments and the deduction of interest on loans to agriculture sector .The government interest in negotiating bilateral investments treaty with foreign countries with strong growth insisted on by rising investments in the agriculture sector that is expected to be one of the key propellants of national economic growth.The African Development Bank (AfDB) Group also predicts that the nation's real gross domestic product (GDP) will grow by 2.4 per cent as the implementation of the Economic Recovery and Growth Plan gains pace.To them one sector that will contribute to it is the expected surge is the agriculture activities. Couple with Nigeria's rich and natural conditions to host a variety of valuable crops and agriculture will remain a critical sector for the economy. They anticipate agriculture would expand due to growth in rice production and other agricultural activities. For instance, analysts expect Nigeria to produce more tonnes of rice through the Central Bank of Nigeria's (CBN's) Anchor Borrowers Programme. Output will rise in fruits,

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vegetables, cereals, cashew, cocoa as well as livestock, which are critical elements for domestic consumption and exports. The President, Federation of Agricultural Commodities Association of Nigeria (FACAN), Dr Victor Iyama, said agriculture will remain one of the most important sectors for business and economic growth. He however, added that value-added food manufacturing is also important to penetrating high potential markets, where a lack of infrastructure and inefficient logistics can create delays that cause a significant proportion of fresh produce to spoil.

On the aggregate, experts said foreign direct investment (FDI) inflows into agriculture are still small in terms of project size and proportion of investment capital compared to the total FDI of the country. Risks remain significant. Domestically, slower progress in strengthening logistics infrastructure have undermined growth prospect, creating large sector liabilities. External risks include escalating trade protection.

Despite the fact that the cost of doing business is very high the poor infrastructure, multiplicity of levies, excessive regulations, among others are challenges faced by the agriculture sector in Nigeria Notwithstanding, the government's goals for the sector, experts said production will be threatened by growing pressures, including a fast-growing population and the effects of climate change. The increasing insecurity caused insurgent activities meant some agricultural enterprises had to hire security, increasing costs and taking the focus away from improving production techniques.

The sector also remains split between small scale farmers with artisanal growing methods, and large-scale production using modern techniques and consolidated expanses of land. Bridging these two sides of the industry will require better integration.
In recent months, weather-related disasters linked to climate change have contributed to the rise in food insecurity.

Flooding in some parts of the country has disrupted the volume of agricultural production, exposing farmers to high vulnerability and causing fatalities.
Another issue is the high rates of urbanisation that has reduced the amount of arable land available for farming. Across the country, the economy has witnessed a substantial spike in property development into land traditionally used for farming.

THEORETICAL FRAMEWORK

Exchange Rates Theory

Aliber (1970) found this theory by make an effort to clarify Foreign Direct Investment as a function of exchange rates interactions. His theory which is based on the strength of various currencies (both the host and the investing countries) states that the countries with stronger currencies can take advantage of the countries with weaker currencies when it comes to exchange differences in a market capitalization. Albert hypothesis was tested with FDI in the US, UK and Canada and the result was positive which confirmed the exchange rate theory.

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Internalisation Theory
Buckley and Casson (1976) discovered this theory which shows that multinational companies organize their internal activities in such a manner that they can benefit from opportunities before them to exploit. They strongly believe in this theory that FDI can lead to profit maximization by firms in an imperfect market situation.

Theoretical Literature of this study
This study is anchored on the **Exchange Rates Theory founded by** Aliber (1970), linking point is the fact that this exchange rate interactions aids Foreign Direct Investment as a this basic model stipulates that foreign Direct Investment is a function of exchange rate, most foreign direct investments emanates from opportunities by foreign investor into another country either because of the fact that its currencies are higher thereby making it easy to invest or attracted into the country of operation. The model gives a vivid description of the economic functionality through which more investment creates opportunity for growth and prosperity. In other for a nation to advance and grow, it must divert part of its resources from current consumption needs and invest them in capital formation.

Empirical Literature
Okorie andEboh, (1990) Posit that the agricultural economy is strategic to national development, particularly for developing countries. In Nigeria, like other developing countries, the agricultural sector's role surpasses the conventional functions related to providing food, raw materials, employment and incomes. The roles of the agricultural sector in a modernising economy are much more transformative and phenomenal than implied in classical models of development.

The above has been examine by various researcher Omoderoet'el (2016) examined the impact of Foreign Direct Investment (FDI) on the stock market performances in Nigeria, from 1985 – 2014. data were collected from IMF, International Financial Statistics (2015), CBN Statistical Books (2015). Multiple regression of least square estimation was the tool used to analyse the data in this study. the FDI was regressed on RGDP, Consumer Price Index, Real effective exchange rate, Money supply (M2), Share price index, Treasury bill, Nigerian stock exchange transactions. The study revealed that FDI has an insignificant and negative impact on the economy and the macroeconomic variables that determine the performances of the Nigerian stock market. The paper recommends policies that would encourage foreign firms operating in the oil and gas including the telecommunication and agricultural sectors to be listed since it would go a long way in attracting more FDI, leading to improvement in the stock market performances.

Akinwale, Adekunle, &Busayo (2018) investigated the impact of foreign direct investment on agricultural productivity in Nigeria. The study employed Augmented Dickey – Fuller (ADF), Johansen test and Error Correction Mode to examine the effect of foreign direct investment and agricultural development. The unit root test results revealed that all the macroeconomic variables namely Agricultural Productivity, Foreign Direct Investment, Bank Credit to Agricultural Sector and Government Expenditure to Agricultural Sector were stationary at first difference. The results of the co-integration test indicated that there exist long run equilibrium relationships among the variables. The result of the error correction

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model indicated that both foreign direct investment and bank credit to agricultural sector had significant effect on agricultural productivity while it was established that there exists an insignificant relationship between government expenditure to agricultural sector and agricultural productivity. It was however concluded that, for the Nigerian economy to benefit from the huge potentials of agricultural sector, the sector must be willing to explore more benefits offered by foreign investors. It was however recommended that; adequate infrastructures should be put in place by the government through massive rural-urban in infrastructure investment scheme in order to attract the flow of foreign investment to the agricultural sector. Government should provide stable and conducive environment that is capable of supporting the growth potentials and flow of international investment into the agriculture sector. Finally, government should prioritize the development of the agricultural sector through increase in government budgetary allocation to the agriculture sector. Government should set up a board for the purpose of monitoring the funds allocated to the agricultural sector in order to prevent diversion of funds by government agencies and farmers
Binuyo (2014) evaluated the impact of FDI on the agricultural sector development of the Nigerian economy. Time series data spanned from 1981 to 2012 were collated, Following ADF test for stationarity and a granger causality test, the study found a relationship among the variables as affirmed by the error parameter. The study reveals that FDI positively impacted on agriculture not only in the short run but also in the long run. Furthermore, political instability adversely affected agricultural investments in the long run. It was recommended that enabling environment should be provided to attract investment on short- and long-term basis.

Yusuff, Afolayan, &Adamu, (2006) Used descriptive analysis and simple linear regression, to examine the level of foreign direct investment on agricultural sector and the substantial effect on the contribution of Nigeria's Gross Domestic Product (GDP). The results revealed that the inflow of FDI to agricultural sector does not follow a regular pattern and the sector's contribution to GDP is in direct relationship with the inflow of FDI. Based on these findings the study recommends that government should put in place the necessary infrastructure and find a permanent solution to the problem of insecurity as this will enhance the flow of FDI into the economy as a whole and agricultural sector in particular.

Oji, Huang, Abba, &Edun (2014) attempts to evaluate the impacts of FDI, trade and its effects on agricultural sector development in Nigeria between the periods of 1980-2009, in analysing the variables (VAR) model was used employing a three-step procedure. The Unit root test was conducted using the Augmented Dickey Fuller (ADF) and Philips-Parron (PP). Johansen and Juselius multivariate Cointegration, test indicate that there is a present of cointegration. Granger causality test result reveals that the variables employed have a bidirectional relationship, unidirectional relationship and no causal relationship. It is recommended that in order to improve on agricultural output and develop the sector as a whole, more FDI should not only be sourced, but government should provide legal and administrative quality framework to encourage more exportation of agricultural output that will enhance foreign exchange earnings and improve the competitiveness of Nigeria agricultural produce in the international market.

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Ayodeji & Yin (2013) evaluated and forecasted the impact of FDI in the agricultural sector from 1980-2007, specifically its impact on agricultural output and labor in a Vector Auto Regression (VAR) environment. Data used in this study were sourced from Central Bank of Nigeria (CBN) statistical bulletin (2009). Results from the analysis revealed that FDI in the period under review had no significant impact on agricultural output. In addition, results of the forecast estimates showed that the current volume of FDI does not have significant effect on agricultural output, but have significant positive impact on labor (employment generation). The study recommended for an increase in the volume of FDI and advised government and other stakeholders to seek FDI that will improve existing or introduce new technology in the agricultural sector and enhance domestic capacity or domestic investment, even if the opportunity cost of a reduction in labor may have to be paid.

Abubakar &Yunusa (2018) examines the impact of foreign direct investment (FDI) on stock market development in Nigeria using annual data from 1981 to 2016. The variables such as stock market development proxied by market capitalization, foreign direct investment, exchange rate, inflation rate and gross domestic savings were used in the study. The study found that foreign direct investment has positive and statistically insignificant effect on stock market development. Exchange rate and gross domestic savings were positive and statistically significant to stock market development, while inflation rate has insignificant negative influence on stock market development in Nigeria for the period under the study. It was recommended that there is need for the government to device several means that will motivate the foreign investors to diversify their investment from oil sector to other sectors of the economy with special reference to stock exchange market. the government should redesign the existing exchange rate policy and ensure full implantation of the policy with the view to reviving the value of our local currency and to stabilize unfavorable fluctuations of exchange rate. And lastly, collaboration of government with the private individual and companies to diversify their investment to other sector such as agriculture, manning, manufacturing among other in order to create more employment opportunities and improve on income generations.

Ogbanje, Okwu, and Saror, (2010) analysed the fate of the agricultural sector in relation to foreign direct investment (FDI) in Nigeria from 1970 to 2007. Duncan Multiple Range Test and Least Square Difference of the Post Hoc Test revealed that agricultural sector got the least average net flow of investment (N553.6132), while manufacturing and processing sector had the highest mean net investment flow (N28,267.00) that mean difference in net FDI between agricultural sector and manufacturing and processing sector (N-27,713.40), mining and quarrying sector (N-25,754.30), and miscellaneous (N-19,490.80). It was concluded that net flow of FDI to Nigeria discriminates against the agricultural sector. Foreign countries should increase investment in Nigeria's agricultural sector so as to mitigate capital inadequate faced by key stakeholders of the sector and increase agricultural GDP. Also, efforts should be intensified by government and other stakeholders to make the sector more attractive to foreign investors.

Abdul-Aziz, Mustapha & Osman (2015) examined the impact of FDI on the performance of the agricultural sector in Ghana from 1980 - 2013 using Johansen cointegration test. The study found that FDI negatively impacted on the agricultural sector productivity in the long

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run but with positive relationship in the short run, also depreciation of the cedi negatively impacted on the growth of the agricultural sector in the long run. Trade openness had positive and significant long run impact on the agricultural sector. It was recommended that the government should harnesses trade relations to stabilize the local currency and ensures that FDI inflows to agriculture and the entire economy are not harmful to the economy by way of capital and excessive profit repatriations.

METHODOLOGY

This study employed secondary data from 1990 to 2018. The data were sourced from Central Bank Statistical Bulletin The choice of the study period is based on the availability of data of all variables in the model. The variables in the model are capital market performance proxied by total market capitalization (TMC), Agricultural foreign direct investment (FDI), real exchange rate (EXCR), and trade openness.The study adopted and modified the model of Abubakar &Yunusa (2018) they use the model below to examine foreign direct investment and stock market development in Nigeria: evidence from ARDL bound test approach to cointegration from 1981 to 2018.

Mcp =F (fdi, Exr, Inf, gds)

Where fdi = foreign direct investment

Exr = exchange rate

Inf = inflation

Gds = gross domestic savings

The model will be modified to reflect the current study.

$$TMC = f(FDI, EXCR, TOP) \quad \text{..... (1)}$$

The OLS linear regression equation based on the above functional relation is:

$$TMC_t = \beta_0 + \beta_1 FDI_t + \beta_2 EXCR_t + \beta_3 TOP_t + \mu_t \quad \text{..... (2)}$$

Where;

TMC	=	Total Market Capitalization
FDI	=	Agricultural Foreign Direct Investment
EXCR	=	Real Exchange Rate
TOP	=	Trade Openness
β_1-β_3	=	Parameters
μ	=	error term

Research Design

Thestudy will adopt *ex-post-facto* research design. This design was utilized because the researcher cannot manipulate the data of the study.Time series data for the period 1990 to 2018 will be used, the choice of this is because of the reliability of data sourced from the central bank of Nigeria statistical bulletin 2018,

Population of the Study

This study covers the performance of capital market in Nigeriaand Agricultural foreign direct investment flows into Nigeria economy

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Source of Data
The study utilized annual time series data for the period 1990-2018 (28 years), obtained from Central Bank of Nigeria (CBN) statistical bulletin and Nigeria Deposit Insurance Company (NDIC). The model adopted

Model Specification
In light of the three (3) hypotheses formulated above, which are in line the with objectives of this study, the models are specified in this study;Total market capitalization as determinant for performance, which is the dependant variables, while agricultural foreign direct investment,(FDI)exchange rate,(EXCR) and trade openness (TOP) are the independent variables of the study.
The specification of econometric model is based on economic theory and on any valuable information relating to the phenomenon being studied.
Model Development and Variable Description
Literature reviewed indicates that Exchange rate, trade openness, and Agricultural foreign Direct investment have effect on capital market performance in Nigeria. Therefore, the inclusion of these variables is to determine as to whether these variables actually have effect capital market performance in Nigeria from 1990 to 2018 that this study covered.

(A) Agricultural foreign Direct investment- As the name impliesagricultural foreign direct investment has to do with investment done byforeigner in another country with permanent interest of ownership in the agriculture sector. These could be foreigners investing in fish farming, cattle rearing, rice production etc.
(B) Exchange rate – This refers to the value of currency for the purpose of conversion to another, it is regarded as the value of the country's currency in relation to another.
(C) Trade Openness- This is trade to gross domestic product ratio as an indicator to the relative importance of international trade in the economy more so its export/import
Percentage to gross domestic product to represent degree of openness
(D) Total market Capitalization- This is the total of all company share its calculated by the price of a stock by the number of outstanding

Method of Data Analysis
We will first carry out stationarity test to determine the time series properties of the variables. On as curtaining the stationarity of the variables, we will proceed to carry out co-integration test. The study will also use descriptive statistics to know the nature of skewedness and normality of the variables. Furthermore, finally, we will use vector error correction (VECM) to know the long run effect of foreign direct investment on the performance of the capital market in Nigeria**.**

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DATA PRESENTATION, ANALYSIS AND DISCUSSION

YEAR	TMC	FDI	EXCR	TOP
1981	5.00	0.33	**0.6100**	0.16
1982	5.00	0.29	**0.6729**	0.12
1983	5.70	0.26	**0.7241**	0.10
1984	5.50	0.36	**0.7649**	0.10
1985	6.60	0.43	**0.8938**	0.10
1986	6.80	0.74	**2.0206**	0.07
1987	8.20	2.45	**4.0179**	0.19
1988	10.00	1.72	**4.5367**	0.16
1989	12.80	13.88	**7.3916**	0.21
1990	16.30	4.69	**8.0378**	0.31
1991	23.10	6.92	**9.9095**	0.35
1992	31.20	14.46	**17.2984**	0.38
1993	47.50	29.66	**22.0511**	0.31
1994	66.30	**22.23**	**21.8861**	0.21
1995	180.40	**75.94**	**21.8861**	0.59
1996	285.80	**111.29**	**21.8861**	0.50
1997	281.90	**110.45**	**21.8861**	0.51
1998	262.60	**80.75**	**21.8861**	0.35
1999	300.00	**92.79**	**92.6934**	0.39
2000	472.30	**115.95**	**102.1052**	0.42
2001	662.50	**132.43**	**111.9433**	0.40
2002	764.90	**225.22**	**120.9702**	0.29
2003	1,359.30	**258.39**	**129.3565**	0.39
2004	2,112.50	**248.22**	**133.5004**	0.38
2005	2,900.06	**654.19**	**132.1470**	0.45

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2006	5,120.90	**624.52**	**128.6516**	0.36
2007	13,181.69	**759.38**	**125.8331**	0.37
2008	9,562.97	**971.54**	**118.5669**	0.05
2009	7,030.84	**1,273.82**	**148.8802**	0.05
2010	9,918.21	**905.73**	**150.2980**	0.04
2011	10,275.34	**1,360.31**	**153.8616**	0.03
2012	14,800.94	**1,113.51**	**157.4994**	0.03
2013	19,077.42	**875.10**	**157.3112**	0.03
2014	16,875.10	**738.20**	**158.5526**	0.02
2015	17,003.39	**602.07**	**193.2792**	0.02
2016	16,185.73	**1,124.15**	**253.4923**	0.18
2017	21,128.90	**1,069.42**	**305.7901**	0.02
2018	21,904.04	**610.38**	**306.0802**	0.26

Source: Central Bank Statistical bulletin, 2018

Descriptive Statistics

	EXCR	FDI	TMC	TOP
Mean	88.66243	374.5313	5049.940	0.234614
Median	97.39928	113.6215	386.1500	0.210574
Maximum	306.0802	1360.308	21904.04	0.589178
Minimum	0.610025	0.264300	5.000000	0.020427
Std. Dev.	87.19264	442.7198	7235.740	0.165930
Skewness	0.799107	0.838228	1.127328	0.229683
Kurtosis	2.964197	2.215769	2.731859	1.836679
Jarque-Bera	4.046318	5.423749	8.162669	2.476862
Probability	0.132237	0.066412	0.016885	0.289839
Sum	3369.172	14232.19	191897.7	8.915327
Sum Sq. Dev.	281294.6	7252032.	1.94E+09	1.018715
Observations	38	38	38	38

Source: Authors Computation Using Eviews 10+

The analysis of descriptive statistics is hereby performed so as to find out the properties of the data. Table 4.1shows the data characteristics including total number of observations, means, standard deviation, skewness, Jarque-Bera statistics and their respective minimum and maximum values of the variables from the period under this study.From table 4.1 below, it was observed that the mean values of Exchange rate (EXCR),Agricultural foreign direct investment (FDI), total market Capitalization (TMC), and trade openness (TOP), 88.7, 374.5,5049.9,and 0.24 respectively The unpredictability in the distributions as captured by the standard deviation, suggests that , EXCR,and TOP were slightly dispersed from its mean since its standard deviation value are below its mean, while only FDI and TMC was found to be highly dispersed, since its standard deviation exceeds its mean value. Furthermore, the skewness values of EXCR (0.799107), FDI (0.838228), TMC (1.127328) and TOP (0.229683)suggesting thatall variables are positively skewed.

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Unit Root Tests

The Augmented Dickey–Fuller test is used in testing the null hypothesis to ascertain if there is unit root in a particular time series of interest. This is not the only test available, but it represents widely used approach. The unit root tests are presented in Table 1. The lag length used in the ADF test based on minimizing the Akaike Information Criterion (AIC), starting with a lag length of maximum.

4.2.1 Table 1. Unit Root Test using Augmented Dickey-Fuller (ADF) Test

Variables	Augmented Dickey-Fuller Test				Order of int.	Remark
	@ level	@ 1st Diff	5% C. V	maxlag		
Log(TMC)	-1.233625	-4.582279	-3.536601	9	I (1)	Stationary
Log(FDI)	-1.066225	-9.325985	-3.536601	9	I (1)	Stationary
Log(EXCR)	-1.307113	-5.524092	-3.536601	9	I (1)	Stationary
Log(TOP)	-1.463172	-9.921338	-3.536601	9	I (1)	Stationary

Source: Author's own computation using E view 10

ADF unit root tests in Table 1 shows that total market capitalization (TMC), foreign direct investment on agriculture (FDI), Real Exchange Rate (EXCR) and degree of trade openness (TOP) where were non–stationary at levels but stationary at first different 1(1). Having ascertained the stationarity status of the variables we proceed next to consider if there exists a list a linear combination (cointegration) of the variables with unit roots that is stationary using the Johansen full information maximum likelihood method.

Cointegration analysis

We used the Johansen approach to test if there exists, a linear combination of the variables with unit roots that is stationary. The I (1) variables are also included in the Vector Autoregressive (VAR) model for the cointegration test. A constant is included in the VAR but no trend. The result is presented in table 2.

4.3.1 Table 2a: Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.352576	67.35261	47.85613	0.0311
At most 1	0.263410	21.70147	29.79707	0.3154
At most 2	0.196295	10.69539	15.49471	0.2309
At most 3	0.075564	2.828554	3.841466	0.0926

Source: Author's own computation

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4.3.2 Table 2b: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.352576	35.65114	27.58434	0.0452
At most 1	0.263410	11.00608	21.13162	0.6467
At most 2	0.196295	7.866839	14.26460	0.3924
At most 3	0.075564	2.828554	3.841466	0.0926

Source: Author's own computation

The Johansen tests revealed that the trace and maximal Eigen statistics show the existence of one cointegrating relationship between variables of agricultural foreign direct investment and capital market growth in Nigeria at 5% level of significance (Table 2). The conclusion drawn from this result is that there exists a unique long run relationship between Total Market Capitalization (TMC) and foreign direct investment on agriculture (FDI), real Exchange Rate (EXCR) and degree of trade openness (TOP). This will lead us to Error correction mechanism (ECM) since the variables are stationary at first difference.

4.3.3 Table 4: The Parsimonious error correction model

Dependent Variable: Dlog (TMC)
Method: Least Square
Date: 08/02/20 Time 08:25
Sample (adjusted): 1985 2018
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.318860	0.115388	2.763374	0.0116
DLOG(TMC(-1))	0.260086	0.207833	1.251414	0.2245
DLOG(TMC(-2))	-0.276115	0.241672	-1.142520	0.2661
DLOG(FDI)	0.230500	0.016100	2.985366	0.0403
DLOG(FDI(-3))	-0.106508	0.101058	-1.053926	0.3039
DLOG(EXCR)	-0.227737	0.103642	-2.176070	0.0527
DLOG(EXCR(-1))	-0.196309	0.198797	-0.987484	0.3346
DLOG(EXCR(-2))	-0.116540	0.181272	-0.642900	0.5272
DLOG(EXCR(-3))	-0.103009	0.196551	-0.524085	0.6057
DLOG(TOP)	0.021150	0.008916	3.237862	0.0143
DLOG(TOP(-1))	0.107505	0.100022	1.074816	0.2947
DLOG(TOP(-3))	0.179438	0.141633	1.266925	0.2191
ECM(-1)	-0.229100	0.113360	-2.020991	0.0562
R^2 = 0.50383, F-statistic = 6.1854, Prob(F-statistic) = 0.05328, D.W. = 19929				

Source: Author's own computation E-view 10

Major Empirical Finding

The over parameterized model from which the parsimonious ECM emanated is presented in appendix. The examination of the econometric models in Table 3 above shows that foreign direct investment on agriculture (FDI), real exchange rate (EXCR) and degree of trade openness (TOP) explains 50% of the total variations in the growth of market capitalization in

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Nigeria. This is indicated by the values of the coefficient of determination R^2 (0.50383). That means the result has a good fit and is statistically significant since the coefficient of determination is greater than or equal to 50 percent. In further analysis the F-values of 6.1854 reveals that the overall regression is statistically significant at 5% since the probability value of the f-statistic is 0.05328 which is less than or equal to 5%. While the Durbin–Watson statistics of 1.9928 indicated the absence of serial autocorrelation.

The coefficient of the error correction term is statistically significant and carries the expected negative sign at 5% level of significant. Hoverer, the speed of adjustment is moderate, that is 23% approximately of the adjustment to equilibrium of market capitalization is expected to occur in the long run. Further, this figure shows the average speed of adjustment of market capitalization movement to its long-run change in the equilibrium conditions. This result indicates that ignoring error correction in non-stationary time series analysis would lead to misspecification of the underlying process to achieve growth of market capitalization in the Nigerian economy. The result shows that increase in foreign direct investment (FDI) on agriculture will enhance the performance of the capital market in Nigeria. From the result above, opening the economy through trade would not help in boosting the capital market in Nigeria.

4.4 Test of Hypotheses

H_{O1}: Agricultural foreign direct investment does not have any positive and significant effect on the capital market performance in Nigeria.

Order of integration = 1(1)
Null Hypothesis: D(LOG(FDI)) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.325985	0.0000
Test critical values:	1% level	-4.234972	
	5% level	-3.540328	
	10% level	-3.202445	

*MacKinnon (1996) one-sided p-values.

H_{O2} Trade openness does not have any positive and significant effect on capital market performance in Nigeria.

Null Hypothesis: D(LOG(TOP)) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.921338	0.0000
Test critical values:	1% level	-4.234972	
	5% level	-3.540328	
	10% level	-3.202445	

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H_{O3}: Exchange rate does not have any significant effect on capital market performance in Nigeria.

Null Hypothesis: D(LOG(EXCR)) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.524092	0.0003
Test critical values:	1% level	-4.234972	
	5% level	-3.540328	
	10% level	-3.202445	

*MacKinnon (1996) one-sided p-values.

DISCUSSION OF FINDINGS

Agricultural foreign Direct investment output positively affect the growth of market capitalization in Nigeria in the long run by 0.2305 units and statistically significant at 5% level. The implication is that foreign direct investment on agriculture has been effective in the country in boasting the growth of the capital market capitalization. On the other hand, real exchange rate has negative effect on the growth of capital market with a value of 0.2277 units and is statistically significant at 5% level in the long run.

Finally, degree of trade openness also positively affects the growth of market capitalization by 0.02115 units and is statistically significant. The result revealed that trade open has a minimal impact on the capital market.

Conclusively, we submit that the result shows a contributory relationship between the growth of capital market and its determinant in Nigeria. the selected variables identified as the determinants of market capitalization, (Total market Capitalization).

The data analysed above relates to agricultural foreign direct investment and performance of capital market in Nigeria proxied by total market capitalization as dependant variable while Agriculture foreign direct investment, Exchange rate, trade openness are all independent variable, the result of this study agrees with some earlier studies conducted byAbubakar and Yunusa (2015) but differs with the work of Abdulaziz,Mustapher and Osman(2015) that found negative relationship between foreign direct investment and agriculture at the long-run but positive relationship at the short run

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

This chapter contains the summary of findings, conclusion, recommendations, and suggestions for further studies.

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Summary of Findings

The findings of the study are summarized below:

a. There exist a positive and long run relationship between agricultural foreign direct investment andperformance of capital market in Nigeria.

b. That there is a negative relationship between exchange rate and capital market performance in Nigeria.

c. There is a slow but positive relationship between trade openness and capital market performance in Nigeria.

CONCLUSION

This study examines the impact of agricultural foreign direct investment on capital market performance in Nigeria for the period 1990 to 2018. The aim of this study was also to determine whether these two important variables are related or not and also to determine the long-run relationship between the variables (agricultural foreign investment and capital market) in Nigeria. Some other important variables such as: Exchange rate, and trade openness were also incorporated in this study along with the main independent variable FDI on agriculture. This study employed the error correction model in the analysis due to the stationarity of the variables after taken their first difference. The study found that foreign direct investment on agricultural output has positive and statistically significant effect on the capital market performance. Also trade openness has significant positive impact on capital market performance in Nigeria. However, the study found that, real exchange rate is significant but has negative influence on the performance of capital market in Nigeria over the sample period.

Recommendation

In consistent with findings, this study recommends the following:

1. There is need for the government to device several means that will motivate the foreign investors to diversify their investment from oil sector to other sectors of the economy such as the agricultural sector since it has a positive influence on the capital market performance

2. Government need to redesign the existing exchange rate policy and ensure full implantation a new policy with the view to reviving the value of our local currency.

3 Government should ensure favourable balance of payment by opening the economy wide for other countries to trade with. This because from the result, trade openness plays insignificant role in the performance of our capital market.

Contribution to Knowledge

The study has successfully modified the model of Abubakar &Yunusa (2018) and also extended the spread of study to 2019

Suggestions for Further Studies

It is my opinion to recommend that further study be conducted on same phenomenon with other methodology and also incorporate other macroeconomic variables to ascertain the relationship between agricultural foreign direct investment and capital market performance in Nigeria

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