Foreign Direct Investment and Service Sector Performance in a Developing Economy: Lessons from Nigeria

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ABSTRACT: *This study analyzes how foreign direct investment (FDI) affected the output of Nigeria's service sector from 1980 to 2020. The study uses service sector output as the regresand, FDI as the major regressor, and exchange rate (EXR) and government spending (GEX) were used as check variables. The data were sourced from the CBN Statistical Bulletin 2020. The nature of the variables necessitated the use of ECM. Results from the short run ECM dynamic model reveals that service sector output responds positively to FDI. We observed that the lag value of service sector output was positive and significant, implying that service sector output responds to past service sector output positively in Nigeria. The ECM's one-period lag coefficient was negative and significant at 0.05, indicating that service sector output adjusts to changes in explanatory variables and its own lag within a year. The ECMt-1 corrects 17.3% of the disequilibrium between static and short-run dynamic models of Service Sector Output (SSO) within a year on average. The study found that the service sector plays a crucial role in this developing economy's economic growth and development. It is an essential macroeconomic sector that can improve the economy's overall performance and influence the flow and direction of income as well as the Balance of Payments (BOP) position. According to the findings, the study suggests that the government should uphold financial responsibility and allocate more funds towards building necessary infrastructure to support the service sector's growth. This will ultimately improve the overall performance of the Nigerian economy.*
KEYWORDS: foreign direct investment, government spending, exchange rate, service sector, ECM.

INTRODUCTION

The growing discrepancy between domestic capital stock and requirements in developing economies highlights the necessity for foreign capital. (Ezeanyeji and Ifebi, 2016). It is clear that

there is a continuous focus on attracting foreign capital, particularly in developing economies, as highlighted by Ezeanyeji and Ifebi (2016). Fosu and Magnus (2006) and Omisakin, Adeniyi, and Omojolaibi (2009) have emphasized the significance of foreign capital inflow in increasing the funds available for domestic investment and facilitating the spread of technology. Ngowi (2001) it has been argued that African countries and other developing nations require a significant amount of foreign investment to address the shortfall in savings and foreign exchange that comes with fast-paced capital accumulation and growth. This is crucial for overcoming poverty that is widespread in these nations. Additionally, foreign investors tend to prefer investing in developing countries over developed ones due to the higher rate of return on investment that is available, primarily due to lower labor costs, tax holidays, and other incentives. (Ghose, 2004; Knill, 2005, Vita and Kyaw, 2008, Ideh et al.,2022). However, the question remains whether foreign investors will take advantage of the high rate of return despite the challenges posed by high production costs and distorted investment incentives. (Ezeanyeji and Ifebi, 2016).

Since the introduction of the Structural Adjustment Programme (SAP) in 1986, Nigeria has been progressively deregulating its economy, which has led to an increase in external capital investment in all vital sectors. (Simeon et al., 2021). Over the years, Nigerian governments have considered external capital inflows through portfolio investment and foreign direct investment (FDI) as a means to enhance political security and economic growth. The Structural Adjustment Program (SAP) facilitated the inflow of external capital investment and fostered economic growth, helping to revitalize the economy after a long and harsh recession. SAP implemented trade and exchange reforms, along with monetary and fiscal measures, to diversify the export base, encourage domestic production, and discourage the use of foreign inputs for local production. (Ewubare and Udoh, 2018). The supply side of the package aims to boost aggregate output by focusing on agro/agro-allied and manufacturing sectors. Specific policy measures have been designed for these sectors. (Ewubare and Udoh, 2018).

It was anticipated that the introduction of SAP would have a positive impact on the economy. Specifically, the significant depreciation of the exchange rate was expected to discourage imports and encourage multinationals to invest in the domestic economy in order to maintain existing trade relationships. However, these expected benefits were not realized due to inadequate implementation. (Ezeanyeji and Ifebi, 2016). As outlined in the Nigeria Enterprise Promotion Decree (NEPD), the government's indigenisation policy placed limits on foreign direct investment (FDI) activities, reducing global interest. The main aim of this policy was to control the inflow of foreign capital by setting a maximum limit of 40% foreign participation in FDI initiatives. Due to restrictive policies and a burdensome bureaucracy, private and foreign investment has decreased, resulting in slowed growth across all sectors of the economy, including services. Ezeanyeji and Ifebi (2016) claimed that this situation hindered foreign involvement in the economy since external

capital inflows accounted for only a small portion of the nation's gross domestic product (GDP). However, there was a slight increase from -0.80% in 1980 to 1.80% in 1990. (Nenbee et al., 2022). The amount of foreign investment coming into the country is much lower than the yearly increase in population. This lack of investment, specifically in the service industry, has not been effective in addressing larger economic issues like joblessness, poverty, and low productivity (Asiebu, 2003). Given this state of affairs, the following questions are addressed in this study:

What is the impact of FDI on the service sector in Nigeria?
Does the exchange rate adversely affect service sector output in Nigeria?
Does government expenditure increase service sector output in Nigeria?
Section 2 reviews related literature concerning the theoretical framework and empirical studies; Section 3 explains the methodological model and *a priori* expectations; Section 4 presents the empirical findings and statistical testing; Section 5 discusses these findings with regard to the service sector and FDI, the exchange rate, and government expenditure; and Section 6 concludes the study; and Section 7 provides some recommendations based on this study's outcomes.

LITERATURE REVIEW

This study is based on the neoclassical endogenous growth model developed by Paul Romer (1990), which includes technological change as an endogenous variable. Four inputs to growth are capital (measured in units of consumption goods), labor (L), human capital (H), and the non-rival technological component of knowledge (Romer, 1990: 79). Neoclassical theory suggests that long-term investment is a crucial factor in a country's economic growth. In contrast, the endogenous growth model theory argues that merely making physical investments is not enough to measure national economic growth. Instead, the effectiveness and efficiency of utilizing investments determine their impact on the economy's growth. Economic models have applied endogenous growth to study FDI's effect on economic growth via technology diffusion. (Barro, 1991). According to Romer (1990), foreign direct investment (FDI) enhances economic growth by boosting human capital, which is crucial for research and development. On the other hand, Grossman and Helpman (1991) highlight that intensified competition and innovation can lead to technological advancements and higher productivity, ultimately contributing to long-term economic growth. This study adopted a theoretical framework that explains the relationship between FDI and economic growth in developing countries.

Table 1 presents a summary review of relevant empirical studies pertinent to this field.

Table 1: Review of Empirical Studies

Method of Data Analysis	Results/ Findings	Recommendations
Opaluwa, D., M. S. Abdullahi, M. Abdul, E. Okpanachi and A. Edogbanya (2013). Foreign Direct Investment and the Growth of the Nigerian Telecommunications Sector: Issues and Analysis, *International Business and Management*, 7(1): 84-88. [1997-2011]		
OLS	FDI positively affects telecommunications sector productivity	It is important to properly integrate communications FDI into Nigeria's mainstream economy and provide the necessary infrastructure to reduce business costs.
Ezeanyeji, C. I., and O. L. Ifebi (2016). Impact of Foreign Direct Investment on Sectoral Performance in the Nigerian Economy: A Study of Telecommunications Sector, *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 3(2): 57-75. [1986-2014]		
OLS econometric	FDI positively affects telecommunications sector productivity	The government needs to implement policies that foster long-term growth in the telecommunications industry and contribute to the nation's overall economic development. Efficient infrastructure, including reliable power supply, should be prioritized. Additionally, political stability is crucial for sustainable growth and progress in both the telecommunications sector and the Nigerian economy.
Ajala, O. A., and T. A. Adesanya (2018). Impact of foreign direct investment (FDI) in telecommunications on Nigeria's economic growth: A descriptive analysis, *Academic Journals*, A Paper Presented at the 9th TEAMS Multidisciplinary Cross-Border Conference. University of Ghana, Legon. 25th-27th October, 2017. [1985-2015]		
Trend and descriptive analysis	Investing in telecommunications through FDI has a positive impact on the Nigerian economy.	For the economy to benefit from foreign investment, the government should create a favorable environment for investors.
Ewubare, D. B., and F. O. Udoh (2018). External Capital Inflows and Telecommunication Sector in Nigeria, *International Journal of Research and Innovation in Social Science (IJRISS)*, 2(10): 88-92. [1980-2015]		
Error Correction Mechanism	FDI positively affects telecommunications sector productivity	The government should improve infrastructure, ensure security, and maintain policy consistency to attract foreign investment to boost FDI.
Adesanya, T. A., and O. A. Ajala (2019). Foreign Direct Investment in Telecommunications Sector and Economic Growth in Nigeria, *Journal of Association of Professional Bankers in Education*, 5(1): 153-172		
Error Correction Model	There is a significant positive relationship between FDI and telecommunications and national economic growth.	Investors can be encouraged to increase FDI inflows by providing an enabling government environment.

Source: Author's Analysis (2021)

METHODOLOGY

The model used in this study is based on previous scholars' empirical models and estimated using econometric techniques such as the Augmented Dickey-Fuller (ADF) unit root test and Error Correction Model (ECM). Due to the subject matter, the ECM technique was chosen as it doesn't require pretesting, allows for multiple co-integrating relationships, treats all variables as endogenous and enables tests related to long-term parameters. Specification of Empirical Model The functional relationship between the regress and regressors is developed from the empirical model of Ezeanyeji and Ifebi (2016), which posited that the contribution of the telecommunications sector to national GDP (GDPT) can be determined by FDI in the telecommunications sector (FDI); i.e. GDPT = f(FDI). However, this study applied modifications to the dependent variable, the numbers and elements of independent variables, and the time frame, such that the functional relationship of the model becomes:

$$SSO = f (FDI, EXR, GEX) \qquad (1)$$

Equation (1) can be expressed in its econometric form as follows:

$$SSO = \beta_0 + \beta_1 FDI + \beta_2 EXR + \beta_3 GEX + U \qquad (2)$$

Where:

SSO = Service sector output

FDI = Foreign direct investment

EXR = Exchange rate

GEX = Government expenditure

β_0 = The intercept of the SSO function i.e. the level of manufacturing sector output when the value of the independent variables (FDI, EXR and GEX) is zero

$\beta_1, \beta_2, \beta_3$ = The coefficients of FDI, EXR and GEX respectively

U = error term (capturing all variables exogenous to the model)

Based on the above, this study has the following *a priori* expectation:

$$\beta_1, \beta_3 > 0 \text{ while } \beta_2 < 0$$

RESULTS

Unit Root Test for Stationarity (Augmented Dickey Fuller)

The stationarity test of the ADF unit root test analysis at level [i.e., I (0)] reveals that none of the model variables (SSO, FDI, GEX, and GEX) were stationary at 0.05 level of significance, given that $t_{cal} < t_{tab}$ in absolute terms, and they have probabilities values of 0.8013, 0.6792, 1.0000, and 0.4054 respectively (which are greater than 0.05) (Table 2). These results give sufficient theoretical background to conduct the ADF unit root test at the 1st difference.

Table 2: ADF Unit Root Stationarity Test at Level I(0) (1980-2020)

Variable	ADF Test Statistic	Critical Value 5%	Probability	Decision
LOG(SSO)	-0.823202	-2.938987	0.8013	Reject
FDI	-1.166906	-2.936942	0.6792	Reject
EXR	2.536105	-2.936942	1.0000	Reject
LOG(GEX)	-1.736765	-2.938987	0.4054	Reject

Source: Author's Computation (2021)

The stationarity test of the ADF unit root test analysis reveals that all model variables (SSO, FDI, EXR, and GEX) are stationary at 0.05 level of significance, given that t_{cal}> t_{tab} in absolute terms, and they are integrated after the 1st difference; furthermore, they have probability values of 0.0000, 0.0000, 0.0050, and 0.0002 (respectively), which are less than 0.05 (Table 3). Therefore, since the variables are integrated after the 1st difference, we can proceed to conduct the Engle-Granger co-integration test for any possible long run relationship among the time-series data in the three models, and the parsimonious error correction techniques are used to develop the model.

Table 3: ADF Unit Root Stationarity Test at 1st Difference I(1) (1980-2020)

Variable	ADF Test Statistic	Critical Value 5%	Probability	Decision
D(LOG(SSQ))	-14.80232	-2.938987	0.0000	Accept
D(FDI)	-8.642552	-2.938987	0.0000	Accept
D(EXR)	-3.871604	-2.938987	0.0050	Accept
D(LOG(GEX))	-4.993563	-2.938987	0.0002	Accept

Source: Author's Computation (2021)

The Engle-Granger Test for Co-integration
The Engle-Granger cointegration test using modified Schwarz criterion method indicates that we have three co-integrating equations at 5% level of significance. Consequently, both the tau-statistic and z-statistic probabilities' results are similar for the different dependent variables (SSO, FDI, EXR, and GEX), with the tau-statistics probability values of 0.9975, 0.9328, and 0.9640; and z-statistics probability values of 0.9969, 0.8584, and 0.9604, which are greater than 0.05 (Table 4). Consequently, it can be concluded that there is a long-run relationship among the study variables SSO, FDI, and EXR. As the tau-statistics probability value of 0.0007 and z-statistics value of 0.0000 are less than 0.05, there is no long-run relationship for GEX.

Table 4: Engle-Granger Test for Co-integration: Modified Schwarz Criterion

Dependent	Tau-statistic	Probability	z-statistic	Probability
SSO	-0.453401	0.9975	-1.591361	0.9969
FDI	-1.711958	0.9328	-7.993631	0.8584
EXR	-1.461570	0.9640	-5.122208	0.9604
GEX	-6.177004	0.0007	-56.12865	0.0000

*MacKinnon (1996) p-values.
Source: Author's Computation (2021)

This is strong evidence from the unit root test conducted, and we observed that all the variables were stationary after the 1st difference. Based on the unit root test and Engle-Granger results, the requirement for fitting in an ECM model is satisfied.

Error Correction Mechanism (ECM) Analysis

From the computed parsimonious ECM results, the estimated coefficient of the ECM is well specified, as it has the expected *a priori* sign (i.e., it is negative) with a probability of 0.0406, which is less than 0.05 (Table 5). This reveals that the ECM coefficient is statistically significant at 0.05 level of significance. The existence of a well specified ECM model indicates how economic agents/actors adjust their anticipated changes in explanatory (economic) variables, and in this case, just about 17.3% on the average respectively. This means just about 17.3% of disequilibrium in SSO is corrected within a year. This implies that the magnitude of the ECM_{t-1} is 17.3%, meaning that about 17.3% of the disequilibrium between the static equilibrium model and short run dynamics model of service sector output is corrected within a year.

Table 5: Parsimonious Error Correction Mechanism (ECM) Results – Dependent Variable: SSO

Variable	Coefficient	t-Statistic	Prob.
DLOG(SSO(-1))	0.053241	0.881237	0.3852
D(FDI)	6.02E-05	0.674910	0.5049
D(FDI(-1))	5.13E-05	0.564423	0.5767
D(EXR)	-0.000309	-0.345904	0.7318
D(EXR(-1))	-0.001183	-1.211338	0.2352
DLOG(GEX)	0.140905	2.587961	0.0147
DLOG(GEX(-1))	0.060613	0.723351	0.4751
ECM(-1)	-0.172617	-2.140501	0.0406
R-squared	0.348022		
F-statistic	2.001725		
Prob(F-statistic)	0.040795		
Durbin-Watson stat	2.320461		

Source: Author's Computation (2021)

The overall fit is satisfactory given an R^2 of 0.348022. Thus, 34.8% variation in SSO is attributed to FDI, EXR, government expenditure GEX, and the lag value of agricultural sector output [SSO (-1)]. The remaining 65.2% are explained by factors not included in the model, but which can affect SSO; these factors are captured by the error term in the model. At 0.05 level of significance, the overall model is statistically significant, as shown by the F-statistic value of 2.001725 with a prob (F-statistic) value of 0.040795, which is less than 0.05. The Durbin-Watson statistic value of 2.320461, which is approximately 2.0, suggests little or no serial correlation among the successive values of the error term.

The 1st lag length period or the previous coefficient of SSO is positive, though statistically insignificant, as its probability value of 0.3852 is greater than 0.05. This implies that the present value of SSO is dependent on its previous value. This is true as the previous year's output can stimulate the outputs of the current year and future periods. The result agrees with the Kaldor's 2nd principle of increased output, whereby Kaldor (1979) argued that output of current period is link to the output of previous period. This implies that current output is a function of previous output. The coefficient of FDI of the explanatory variables showed a positive sign and conformed with economic theory for both the current and 1st lag length period, but was statistically insignificant at 0.05 level of significance, since it has the probabilities values of 0.5049 and 0.5767 (respectively). Consequently, the hypothesis that there is no significant relationship between FDI and Nigeria's service sector output is rejected, and it can be concluded that although service sector output is a positive function of the inflow of FDI in conformity with economic theory, FDI inflow has no optimally enhanced service sector performance in Nigeria. The implication of this finding is that for FDI to have positive optimal impact on the performance of the service sector, the government needs to implement macroeconomic policies that will attract and direct the inflow of FDI to the service sector in Nigeria.

The coefficient of EXR showed negative signs for the current and 1st lag length periods, conforming with economic theory for both periods. However, it is statistically insignificant at 0.05 level of significance for both periods, since it has probability values of 0.7318 and 0.2352 (respectively), which are greater than 0.05. This implies that we do accept the hypothesis that there is no significant relationship between exchange rate and Nigeria's service sector output and conclude that although service sector output is a negative function of the exchange rate, in conformity with economic theory for the periods, the exchange rate has not necessarily retarded service sector performance in Nigeria. The implication of this finding is that for the exchange rate to optimally enhance the performance of the service sector, the government has to implement trade policies that will stabilize the naira exchange rate, particularly against the US dollar, in order to reduce cost of importing machineries/technology and attract investment in the service sector, since Nigeria has a large market that can sustain a robust service sector.

The coefficient of GEX showed a positive sign for the current period and the 1st lag length periods. It is statistically significant at 0.05 level of significance for the current period, since it has the probability value of 0.0147, which is less than 0.05. This implies that we do not accept the hypothesis that there is no significant relationship between government expenditure and Nigeria's service sector output and conclude that government expenditure optimally enhances service sector performance in Nigeria. The implication of this finding is that for the country to fully optimize its gains, the government needs to channel its expenditure to the provision of basic infrastructure that it will enhance the performance of the service sector, so as not to crowd-out this sector.

These results are in consonance with the results and findings of the previous related studies summarized in Table 1, whose empirical analyses demonstrated that FDI positively affects the Nigerian service sector.

Coefficient Diagnostics Test Analysis

The results of the variance inflating factors test for multicollinearity show that all Centered VIF values are below 10 (Table 6), thus the independent variables are not collinear to the dependent variable. Consequently, the hypothesis of no multicollinearity is accepted (i.e., the OLS assumption of no multicollinearity is not violated).

Table 6: Multicollinearity Test (Variance Inflation Factors Test)

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
DLOG(SSO(-1))	0.003650	1.912310	1.108494
D(FDI)	7.96E-09	1.370985	1.347645
D(FDI(-1))	8.27E-09	1.424221	1.399126
D(EXR)	7.96E-07	1.812773	1.468594
D(EXR(-1))	9.54E-07	1.563383	1.295645
DLOG(GEX)	0.002964	1.607347	1.356171
DLOG(GEX(-1))	0.007022	2.314315	1.446452
ECM(-1)	0.006503	1.886183	1.849232

Source: Author's Computation (2021)

The Residual Diagnostics Test Analysis

The histogram-normality test showed that the error term is skewed to the right, given the skewness statistic value of 0.744688, and leptokurtic, given the kurtosis statistic value of 3.131409. Determining the distribution of data in a model requires conducting a normality test. Based on Figure 1, the null hypothesis that the variables follow a normal distribution cannot be rejected, as the Jarque-Bera probability value at 0.162618 is greater than 0.05. Therefore, the variables do adhere to a normal distribution, ensuring that the OLS assumption of normal distribution of error term values is not violated.
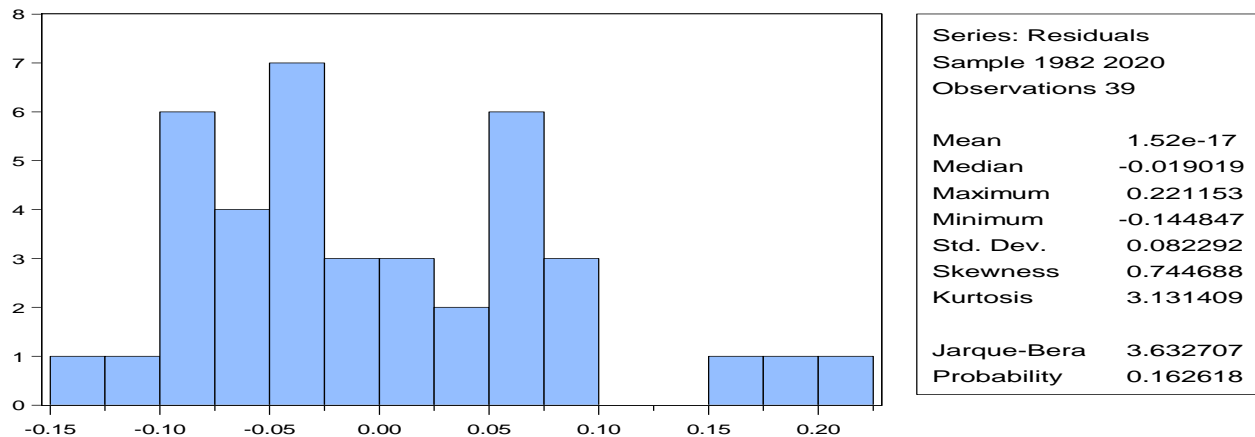
Figure 1: Histogram-Normality Test Results
Source: Author's Computation (2021)

Serial correlation test using the Breusch-Godfrey Serial correlation LM test reveals that the probability F-statistic value of 0.0653 is greater than 0.05 (Table 7). the conclusion is that the residual in the short-run ECM dynamics model is not serially correlated. This means the OLS assumption that the value of U_t is not dependent on the value of U_{t-1} or U_{t+1} is not violated.

Table 7: Breusch-Godfrey Serial Correlation Lagrange Multiplier (LM) Test Result

F-statistic	3.462519	Prob. F(2,28)	0.0653
Obs*R-squared	7.733034	Prob. Chi-Square(2)	0.0209

Source: Author's Computation (2021)

Heteroscedasticity test using the Breusch-Pagan-Godfrey LM test showed the F-statistic value of 0.7148, greater than 0.05 (Table 8); consequently, the null hypothesis of homoscedasticity or constant variance of the residual is accepted. This means that the OLS assumption of the homoscedasticity of the error term is not violated.

Table 8: Heteroscedasticity Test – Breusch-Pagan-Godfrey Test Result

F-statistic	0.668443	Prob. F(8,30)	0.7148
Obs*R-squared	5.900101	Prob. Chi-Square(8)	0.6584
Scaled explained SS	3.720571	Prob. Chi-Square(8)	0.8814

Source: Author's Computation (2021)

Stability Diagnostic Test Analysis
This test aims to determine if the model estimation was done correctly. It utilizes the F-statistic, and the null hypothesis states that the model was correctly specified. If the probability value of F-statistic is less than 0.05, the null hypothesis is rejected; otherwise, it is not rejected. Based on

the results, the probability value of 0.1191 for the F-statistic is greater than 0.05, indicating that the null hypothesis is not rejected. Therefore, the estimated model was correctly specified, and the OLS assumption that the model is correctly specified is not violated.

Table 9: Specific Error Test – Ramsey RESET Test Result

	Value	df	Probability
t-statistic	1.606192	29	0.1191
F-statistic	2.579853	(1, 29)	0.1191
Likelihood ratio	3.323718	1	0.0683

Source: Author's Computation (2021)

DISCUSSION

Service Sector and FDI

Based on the analysis of the ECM short run dynamics model, it has been concluded that FDI positively impacts the service sector. Therefore, we can confirm the hypothesis that there is a significant relationship between FDI and the agricultural sector performance in Nigeria. The coefficient (0.0000602) of FDI in Table 10 shows that its magnitude is less than unity. This means that an increase in FDI inflow leads to an increase in service sector output in Nigeria. However, the magnitude is inelastic, which indicates that a percentage increase in FDI inflow causes less than a one per cent increase in the service sector output in Nigeria. The positive sign indicates that the relationship aligns with current economic theory, which suggests that an increase in Foreign Direct Investment (FDI) in the service sector will result in improved performance. This finding suggests that the government should implement macroeconomic policies that attract and direct FDI towards the service sector in Nigeria, to maximize the positive impact on its performance.

Table 10: Summary of ECM Results – Dependent Variable: Service Sector Output

Dependent Variable: SSO		
Variable	Coefficient	Probability
FDI	0.0000602	0.5049

Source: Author's Computation (2021)

This result is in tandem with the findings of the previous studies summarized in Table 1, whose empirical analyses revealed that FDI had a positive impact on Nigerian service sector growth.

Service Sector and Exchange Rate

From the ECM short-run dynamics model analysis, EXR has a negative impact on service sector. Thus, we accept the hypothesis that there is no significant relationship between exchange rate and service sector performance in Nigeria. The magnitude of the coefficients (-0.000309) of EXR is less than unity (Table 11). The negative signs indicate that a depreciation of the Nigeria naira

against the US dollar causes a decrease in service sector output in Nigeria; the magnitude is less than unity or inelastic, which implies that a percentage increase in the depreciation of the naira against the dollar causes a less than one percent decrease in service sector output in Nigeria. The negative sign also implies that the relationship is in conformity with existing economic theory that a depreciation of the naira against the US dollar will adversely affect the performance of the service sector. The policy implication of this finding is that for exchange rate to optimally enhance the performance of the service sector, the government has to implement trade policy that will stabilize the naira exchange rate, particularly with the US dollar, to reduce the costs of importing machinery and technology etc., and to attract investment in the service sector in Nigeria, since the country has a large market that can sustain a large and active service sector.

Table 11: Summary of ECM Results – Dependent Variable: Service Sector

Dependent Variable: SSO		
Variable	Coefficient	Probability
EXR	-0.000309	0.7318

Source: Author's Computation (2021)

Service Sector and Government Expenditure

From the ECM short-run dynamics model analysis, GEX has a positive impact on the service sector. Thus, we accept the hypothesis that there is a significant relationship between government expenditure and service sector performance in Nigeria. The magnitude of the coefficients (0.140905) of GEX is less than unity, indicating that an increase in GEX causes an increase in service sector output in Nigeria; the magnitude less than unity or inelastic implies that a percentage increase in GEX causes a less than one percent increase in the service sector output in Nigeria. This also implies that the relationship is in conformity with existing economic theory that an increase in GEX leads to an increase in the performance of the service sector. This finding highlights an important policy implication. To fully optimize gains and benefits, the government must prioritize the provision of basic infrastructure to boost the performance of the service sector and avoid crowding it out.

Table 12: Summary of ECM Results – Dependent Variable: Service Sector

Dependent Variable: SSO		
Variable	Coefficient	Probability
GEX	0.140905	0.0147

Source: Author's Computation (2021)

CONCLUSION

In this research, we investigated how foreign direct investment (FDI) affects the service sector's performance in Nigeria. To accomplish this, we used a multivariate regression model to measure

the empirical impact of FDI on the service sector's output in Nigeria. The dependent variable was the service sector's output, while the independent variables were GEX, FDI, and EXRas. We analyzed annual time series data from 1980 to 2020, the Unit Root Test and ECM model of OLS methods were used to estimate the specified model. The results show that the ECM is rightly signed (i.e. negative) and is capable of correcting 17.3% disequilibrium in SSO within a year. The study concluded that:

- FDI enhances the performance of service sector in Nigeria.
- Exchange rate retards the performance of service sector in Nigeria.
- Government spending enhances the performance of service sector in Nigeria.

Recommendations
- The government should maintain fiscal discipline and increase budgetary allocation for the provision of basic infrastructure to support national service sector performance.
- The government should set up agencies such as an investment promotion agency (IPA) and embark on a more liberalized policy to attract FDI inflow and incentivize domestic investors. This would enhance the country's service sector performance and stimulate the growth of the Nigerian economy.
- The government should develop a sound trade policy to stabilize the value of the naira against trading partners' currencies, particularly the US dollar. This would enhance real sector performance, as costs of production become relatively cheaper. This would invariably stimulate the growth of the Nigerian economy.

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