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FDI INFLOW AND ECONOMIC OPPORTUNITY NEXUS IN NIGERIA: A MULTI-SECTORAL ANALYSIS

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ABSTRACT

The study examines the relationship between FDI inflows and economic opportunities nexus in Nigeria over the period 1986 to 2022. Specifically, the study considers how the growth of output in agricultural (AGR), construction/real estate (CRES), mining and quarrying (MIQU), transportation and storage (TSSE), information and communication (ICS), and manufacturing (MSE) sectors affect foreign direct investment growth (FDIG). The study makes use of the ex-post facto research design. The data utilized in the study were sourced from the statistical bulletin of Central Bank of Nigeria. At the 5% level, the study used the descriptive statistics, unit root, Johansen co-integration, Parsimonious ECM, and Granger Causality test. The unit test result shows that the variables are all stationary at first difference requiring the Johansen co-integration that verifies the presence of long-run form. The Parsimonious ECM test shows that AGR and ICS are positive but insignificant to FDIG, CRES is negative and insignificant to FDIG, MSE and MIQU are positive and significant to FDIG, and TSSE is negative and significant to FDIG. The Granger Causality test shows the absence of causality among the variables. In conclusion, the economic opportunities in the various sectors of the Nigerian economy significantly affect FDI inflows. The study recommended that the federal government of Nigeria should continue to encourage more growth in the manufacturing and mining and quarrying sectors in form of concessions, tax holidays as well as free production and export zones so as to increase the FDI inflows.

KEYWORDS

Output, Investment, Foreign, Nigeria, Sectors.



Introduction

According to the guidelines outlined in the Balance of Payment Module (BPM 6), foreign direct investment (FDI) refers to a form of international investment wherein a direct investor, who is a resident of one country, seeks to obtain a lasting interest in a direct investment enterprise located in another economy. FDI refers to the allocation of capital with the intention of obtaining a majority ownership (10% or more) in a company situated in a foreign country, distinct from the investor's country of origin. According to UNCTAD (2019), FDI entails the acquisition of a substantial and enduring interest, as well as a significant degree of influence, by an investor residing in one nation over a business situated in another nation, commonly referred to as a foreign affiliate.

FDI is widely recognised as a significant mechanism for enhancing economic growth within an economy. In pursuit of this objective, it has become increasingly prevalent for governments to formulate policies and initiatives aimed at attracting foreign direct investment to their economies. This trend is particularly evident in developing nations, including Nigeria. In Nigeria, successive governments have made numerous efforts to transition the economy from a mono-product structure to a more diversified one. Therefore, based on her policy direction, it is apparent that Nigeria demonstrates a clear intention to diversify its economy beyond its reliance on oil. The coordination among the three important areas of Industry, Trade and Investment in Nigeria is evident through the establishment of Federal Ministry of Industry, Trade and Investment demonstrating a clear intention to promote coordination and collaboration among these sectors. Other legislative acts and organisations. include the Nigerian Investment Promotion Commission (NIPC) Act, the National Office for Technology Acquisition and Promotion (NOTAP) Act, the Nigerian Communications Commission Act and associated regulations. These initiatives and regulations, along with various other factors, significantly contribute to the redirection of foreign direct investment inflows into Nigeria.

According to the findings of Lloyd Bank (2023), Nigeria ranks as the third most significant recipient of FDI in Africa, following Egypt and Ethiopia. Nigeria experienced a notable increase in FDI inflows in 2021; for instance, the country received a total of USD 4.8 billion, which is more than double the amount received in 2020 (USD 2.3 billion) (UNCTAD World Investment Report, 2022). Furthermore, this figure surpasses the pre-pandemic level of FDI inflows. In order to effectively attain the goals of diversification and the resulting developmental advantages, it is imperative that the inflow of FDI is not concentrated solely within a specific sector, but instead is directed towards other sectors as well. Therefore, in this context, the focus lies not on the overall volume of FDI, but rather on the specific sectors of the economy. The main argument is that the differences in sectorial economic potentials could significantly account for FDI inflows in response to these.

Nevertheless, despite the implementation of numerous economic reforms by successive governments, the economy continues to rely heavily on the oil sector, as the contribution of other sectors to overall economic growth has been lacklustre (Nwosa, 2018). Hence, the inflow of FDI into various sectors plays a crucial role in fostering sectoral development and, consequently, overall economic growth. According to the studies conducted by Waliu (2017), Ayanwale (2007), Ola, Akintaro, and Adediwura (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019), Akarara and Ouseibai (2022), as well as Olanrele and Awode (2022), it has been demonstrated that FDI inflows play a significant role in fostering economic growth. The investigations conducted by Waliu (2017) and Ayanwale (2007) did not focus on specific sectors, but instead employed financial modelling and examined the determinants of foreign FDI to analyse the economic growth of Nigeria. In contrast,

Ndibe, Ojiula, and Asalu (2021), Ola, Akintaro, and Adediwura (2020) and Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019) focused their research exclusively on the manufacturing sector. However, Ogbanje and Salami (2022) centred their investigation on the agricultural sector. On the other hand, the studies conducted by Nwosa (2018) and Akpan and Eweke (2017) were confined to the industrial sector exclusively, thereby contrasting with Obayori, Obayori, Inimino, and Tubotamuno's (2016) study which was based on insufficient sectoral variables, namely, the manufacturing, telecommunication, and oil sectors. In a notable departure from other studies, Nnamdi and Eniekezimene (2018) focused their research exclusively on the classified sectors of the Nigerian economy, specifically examining the impact of micro-credit disbursement. In contrast to Nnamdi and Eniekezimene's (2018) use of micro-credits, the author advocates for the utilisation of FDI inflows as the influencers of economic opportunities in the Nigerian sectoral performance. Further, it is obvious from the foregoing studies that the dimensions of estimation used were scanty compared with the author's dimensions in addition to the time frame when the other studies were carried out, thereby requiring a review.

Theoretical Framework

Entry Mode Theory

This theory is based on the eclectic paradigm of Dunning (1976). Accordingly, Dunning's (1993) FDI can be categorized into four according to their motives for investing abroad. These are:

- 1) Resource-seeking FDI:** This explains one of the motives why investing firms invest abroad. Investing in host country could be as a result of low-cost labour, machines and other resources. Thus, foreign investors would wish to invest in Nigeria due to the abundance of mineral resources such as petroleum, or cheap labour for productive operations. Hence, resource seeking FDI is a strategy that is aimed by foreign enterprise to acquire certain resources that are not available at the home country or are cheaply accessible at the host country for use as inputs. In other words, in resource-seeking, firms are driven to invest overseas in order to access certain resources at a lesser cost than they could, if at all, do so in their home country. Thus, resource-seeking firms seek and secure natural resources e.g. minerals or raw materials, or upstream investments abroad.
- 2) Market-seeking FDI:** This explains that the motivation of foreign investor in a host country is for the purpose of expanding and accessing the host country's market for selling their excess goods and services that cannot be fully absorbed at home. Thus, saturation in global market forces multinational firms to seek for markets in emerging or developing economies, such as Nigeria, to expand their sales by taking advantage of the scope of the demand of their goods and services by the host country's consumers.
- 3) Efficiency-seeking FDI:** This explains the investments made by foreign firms that aim to boost their productivity by taking advantage of economies of scale and scope. Thus, efficiency can be attained by means of economies of scale, technological partnerships, knowledge and experience exchange, etc. The primary drivers of this kind of foreign direct investment, according to Dunning and Lundan (2008), are to profit from differences in labor costs, manufacturing costs, economic policies, institutional processes, market size, and market structures across national boundaries.
- 4) Strategic Assets -seeking FDI:** This type of investment explains the motive of a foreign firm in acquiring the assets of a domestic firm for long-term strategic objectives. This could be for the purpose of exploiting specific cost or marketing advantages over their competitors.

Empirical review

Ekechukwu, Ebiringa, and Chris-Ejiogu (2023) conducted a study on the multi-sectoral analysis of the impact of FDI on Nigeria's Output Growth during the period of 1990-2020. The study utilised the ARDL technique to examine the impact of FDI, interest rate, and exchange rate on output growth, revealing a positive relationship.

Akarara and Ouseibai (2022) investigated the impact of foreign capital inflows on economic performance in Nigeria using a time series data sourced from the World Bank over the period 1981 to 2022. Estimation techniques involving Augmented Dickey Fuller technique, Johansen Cointegration Test, Error Correction Model, and Granger Causality were used. The results of the analysis revealed a negative and insignificant relationship between FDI and GDP. Further, there was a positive, though insignificant relationship between Remittances and Net Official Assistance and GDP. On the other hand, there was a favourable and significant relationship between GDP and Gross Capital Formation. In addition, the study inferred that the determinants of foreign capital inflows as used in the study, namely, FDI, Remittances and Net Official Assistance had impacted insignificantly on the Nigerian economic development in a short-run, but in a long-run, the impact was substantial. However, considering the capital formation, its impact was significant on the economic growth in both the short term and long term. The study concluded that in order to increase the amount of money available for domestic investment, the government should encourage savings by raising deposit interest rates. Additionally, the government should create an environment that is conducive to investment growth by offering necessities like electricity, good transportation, and health care.

Olanrele and Awode (2022) looked at how energy use, FDI, and economic growth in Sub-Saharan Africa interact dynamically. The study uses the Generalised Method of Moments to examine the magnitude of influences among energy consumption, foreign direct investment, and economic growth. The analysis uses data from 42 Sub-Saharan African nations spanning from 1991 to 2018. According to study results, a percentage increase in energy consumption results in 1.3 percent more economic growth. The use of energy, on the other hand, goes up by 0.004% as the economy grows. Foreign direct investment (FDI) and economic growth also have a strong one-way causal relationship running from FDI to economic growth. . In order to boost economic growth, the study recommends that Sub-Saharan African governments should make sure that more people have access to electricity.

The effect of foreign direct investment on Nigeria's agriculture industry was investigated by Ogbanjo and Salami in 2022. The study data, spanning from 1981 to 2019, were sourced from the Central Bank of Nigeria as well as Food and Agriculture Organisation. The estimation techniques used included Augmented Dickey-Fuller, Johansen's Co-integration, and Error Correction tests. According to Augmented Dickey-Fuller, the variables were $I(1)$, while Johansen's Co-integration revealed a long-term relationship amongst the variables. The result of the analysis showed that the acceleration of the agricultural productivity (6.28) is slower than FDI (17.99). On the other hand, FDI and exchange rate both significantly and negatively impacted on the agricultural productivity, whereas implicit price deflator for the agricultural sector significantly and positively impacted on agricultural productivity in the long-run. However, the result of the Error Correction Model showed that the speed of adjustment to the short-run equilibrium was high (79.71%). Consequently, the study inferred that dependence on FDI would be harmful to agricultural GDP in the long-run. The study eventually recommended that The Federal Ministry of Agriculture and Rural Development should formulate and implement policies that would attract FDI inflows as this would improve the negative trends. Also, the Central Bank of Nigeria should ensure the stability as well as availability and ease of access of FOREX for procuring farm inputs.

The contribution of Nigeria's manufacturing sector to the country's GDP was examined by Ndibe, Ojiula, and Asalu in their study from 2021. Finding the causal relationship between FDI and the growth of the manufacturing industry as well as establishing the link between FDI net inflows and the GDP contribution of the manufacturing sector were two specific goals. Two study hypotheses and questions were created in order to accomplish the goals while using the World Bank Development Indicators for secondary data covering the period of 1990-2019. The tools for analysis include Granger causality and Linear regression models. The outcome demonstrated a one-way causal relationship between FDI and the GDP contribution of the manufacturing sector, suggesting that FDI inflows to Nigeria were not the cause of the manufacturing sector's contribution to GDP. Additional finding showed that no statistically significant linear link between net FDI inflows and the GDP contribution of Nigeria's manufacturing sector. The study's conclusion is that Nigeria's manufacturing sector's modest contribution is not due to net FDI inflows, hence the government and policymakers need to think about possibilities for policies that will draw FDI to the manufacturing sector.

The effects of foreign direct investment on manufacturing output in Nigeria were explored by Ola, Akintaro, and Adediwura (2020). A time series data spanning from 1986 to 2018 were utilized. ARDL method was used to analyze the data. The dependent variable of the study was manufacturing output, while the independent variables included foreign direct investment, trade openness, gross fixed capital formation, and inflation on consumer prices. The research' findings demonstrated that both FDI and Consumer price inflation had a favorable impact on the manufacturing output in the nation., in contrast to the negative effects of trade openness and gross fixed capital formation. The study concluded that FDI and manufacturing output in Nigeria have a positive but insignificant relationship whereas trade openness and gross fixed capital formation have negative but significant relationship. The study recommended that policy makers should embark on the formulation and implementation of policies that tend to attract and retain FDI in the manufacturing sector as this will boost the performance of the sector.

The main reasons why multinational corporations engage in businesses in India through inward foreign direct investment were identified by Kishor, Jamia Hamdard, and Khan in (2020). The purpose of the study was to ascertain how multinational corporations' reasons for bringing in foreign capital affected the benefits enjoyed by managers. To gather information regarding motivations and how they affect benefits, the study employed a survey methodology. This was done using statistical methods like confirmatory factor analysis and structural equation modeling. According to the study, the primary driver of foreign multinational corporations' investment decisions is market-seeking, followed by resource-seeking and efficiency-seeking. The study inferred that the desire for strategic assets has little effect on foreign direct investment in India. The study discovered a favorable relationship between the perceived advantages and the drivers of inward foreign direct investment in India.

Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019) examined the connection between the Nigerian manufacturing sector and foreign direct investment (FDI). To determine how the variables are related in the long term and short term, the study utilised time series data spanning 36 years. To achieve this, autoregressive distributed lag (ARDL) and cointegration technique were used. The outcome of the analysis revealed that the coefficient of determination is 97%, indicating that 97% variation in the manufacturing sector indicators were accountable by the effects and interaction of the FDI, inflation rate, government expenditure and money supply. The study eventually recommended that the government should implement policies that will attract FDI into the manufacturing sector in order to contribute to economic growth as well as employment generation.

Nnamdi and Eniekezimene (2018) investigated the short- and long-term effects of micro-credits deployed to several categorised economic sectors as used by the active poor in Nigeria. The analysis uses data sourced from the Central Bank of Nigeria for the 25-year period between 1992 and 2016. The analytical tools used included Unit Root, Multiple Regression, Johansen's Cointegration and Vector Error Correction tests. The result of the analysis revealed that Cointegration test exhibited a strong long-run relationship amongst the variables. On the other hand, the results of the Multiple Regression and Vector Error Correction tests showed that the microcredits disbursed to mining/quarrying, real estate/construction and transport/general commerce sectors were very important in promoting human development in Nigeria both in the short-run and long-run respectively. According to the study's findings, microcredits distributed to the mining and quarrying, real estate and construction, and transport and general commerce sectors are crucial for forecasting Nigeria's human development index. The study finally recommended the need for increment in the volume of loans availed by microcredit institutions to deserving sectors, namely, the mining/quarrying, real estate/construction and transport/general commerce sectors. Further, there is need to encourage Nigerian microcredit institutions to increase their investments in the creation of microcredit and deposit products. This will boost lending to the sectors as well as the human development index of Nigeria.

Nwosa (2018) investigated the impact of FDI on the growth of Nigeria's industrial sector from 1970 to 2016. The study made use of the Error Correction Model, and the findings indicated that FDI significantly but negatively impacted Nigeria's industrialization. The study came to the conclusion that foreign direct investment has done more harm than good for the development of Nigeria's industrial sector. As a result, the study suggested that the Federal government move its priorities and policy directions away from the oil industry and toward the industrial sector, as doing so will draw in international investment.

In order to determine the causal link between foreign direct investment inflow, financial development, and economic growth, Waliu (2017) examined the impact of foreign direct investment inflow on economic growth in Nigeria using financial development as a control variable. The study's data comes from the central bank of Nigeria's statistics bulletin and covers the country's economy from 1982 to 2014. Economic growth was regressed on foreign direct investment inflow, financial development, exports, and labor using the ordinary least square method. The study's hypotheses were tested using the t statistic at the 5% level of significance as well as the augmented Dickey-Fuller Unit Root Test and Granger Causality Test. The findings demonstrated a one-way causal relationship linking financial development and rising GDP. The individual effects of either financial development or foreign direct investment are negative; however, the significance and positive coefficient of foreign direct investment in achieving the desired growth in output is dependent on financial development. Finally, the study recommends that the government should support foreign direct investment inflows by fostering infrastructure improvement, political stability, tax breaks, and other financial incentives, but these should be complemented by measures that support financial development.

In order to determine how FDI and industrial sector performance influence the Nigerian economic growth, Akpan and Eweke (2017) employed a time series data covering a period 1981 to 2015. For the purpose of estimation analysis, the study utilized Impulse Response Functions (IRFs) and Variance Decomposition (VDC) techniques within a Vector Autoregressive (VAR) framework, Johansen's cointegration, and Granger Causality techniques. The results of the Johansen Cointegration test indicate that there is no long-term correlation between FDI, industrial sector output, and GDP. The outcome also demonstrates a two-way link between FDI and Industrial Sector Output, GDP and Industrial Sector Output, with a one-way causality from FDI to GDP. The VAR estimate

demonstrates that, whereas Industrial Sector Output had a little significant positive influence on GDP at the time of estimation, FDI had a slight significant negative impact on GDP. The impulse response functions clearly show that GDP responded negatively to shocks in FDI up to the third period, but that impact began to turn around starting in the fourth period. In addition, GDP responded negatively to shocks in industrial sector output over the duration of the observation period. The variance decomposition study also showed that FDI shocks, rather than industrial sector production, were the key drivers of GDP. According to the study's findings, Nigeria has yet to completely benefit from FDI since its current GDP contribution is still relatively low, and the industrial sector's participation has not been strong enough to promote economic growth. The study consequently suggests the need for social and economic infrastructure to be strengthened since doing so will assist and ease the burden on industrialists, ultimately cut the cost of doing business, and ultimately encourage FDI into Nigeria.

Obayori, Obayori, Inimino, and Tubotamuno (2016) studied the sectoral FDI inflow and economic growth in Nigeria. The study's goal was to ascertain how FDI has affected specific sectors of the Nigerian economy in terms of economic growth. In order to determine the association between FDI inflow to the manufacturing sector, communications sector, oil sector and economic growth (GDP), a growth model was developed using the multiple regression approach. The variables were examined for stationarity, and the analysis was conducted using the Johansen co-integration method. The study discovered that the manufacturing, telecommunication, and oil sectors have had consistent inflows of foreign direct investment with strong growth. According to the study's conclusions, it is necessary to effectively channel and integrate foreign direct investments into the core of the economy since they have the ability to stimulate economic growth in Nigeria's manufacturing, telecommunication, and oil sectors.

Ayanwale (2007) explored the causes of FDI entering the Nigerian economy and looked at the empirical link between non-extractive FDI and economic growth in Nigeria. The Federal Office of Statistics, the International Monetary Fund, and the Central Bank of Nigeria were used as secondary data sources, covering the period 1970 to 2002. The statistical tools for analysis used include OLS and 2SLS method. According to the findings, market size, infrastructural growth, and a stable macroeconomic policy are the main drivers of FDI in Nigeria. However, trade openness and the availability of human capital do not encourage FDI. The growth of the economy of Nigeria is favorably impacted by FDI though not to a large extent, but its constituent parts do. The potential for economic growth in the communication industry, which receives more foreign direct investment than the oil sector, is the highest. The economy is severely impacted by FDI in the manufacturing sector, which is a reflection of the unfavorable business climate in the nation. Further, there is insufficient human capital. The government also needs to address the manufacturing industry's negative impact, which is a result of Nigeria's unfavorable business environment, by consciously improving the business environment through adequate infrastructure supply so as to enable manufacturing sector contribute favorably to growth. This will bring down the cost of doing business in Nigeria. The privatization of the Power Holding Company is a good idea, provided there is improvement in the service offered, as this will make it possible for FDI in manufacturing sector to considerably boost growth in the economy.

Methodology

The researcher employed an ex-post facto research design in order to mitigate potential data manipulation. This is due to the utilisation of the data in the study that originates from dependable secondary sources that are beyond the researcher's control. The analysis was enhanced by incorporating data from the Central Bank of Nigeria and World Bank databases, covering the period

from 1986 to 2022. This study utilises the growth rate of output in various sectors, namely agricultural, construction/real estate, mining and quarrying, transportation and storage, information and communication, and manufacturing, as an indicator of economic opportunities. These sectors are classified according to the Central Bank of Nigeria's statistical bulletin. Furthermore, the study employs the growth rate of foreign direct investment (FDI) inflows as the dependent variable in the analysis. A range of statistical methods are employed in the analysis, encompassing descriptive statistics, unit root, Johansen co-integration, Parsimonious ECM, and Granger Causality test.

Justification for the Inclusion of the Selected Variables

Growth Rate of Agricultural Sector Output (AGR): This simply refers to the proportionate increase in the unit of output of the agricultural sector over a period of time, usually a year as used in this study. Increase in the agricultural sector output (growth rate) is expected to attract more FDI inflows into Nigeria. This is because the increase of output in the sector signals the presence of opportunities to foreign investors, thereby prompting them to invest in the sector. Hence, this increase in output makes investors to see it as a very vibrant sector in which they can easily reap capital gain. Consequently, we expect a positive relationship between AGR and FDIG. Thus, as agricultural sector output increases, the FDI growth rate also increases. This assertion reflects the resource-seeking FDI theory which explains that the motive behind FDI inflow could be as a result of abundance or low cost of resources (Dunning 1993).

Growth Rate of Construction/Real Estate Sector Output (CRES): This term denotes the relative growth in the quantity of output within the construction/real estate industry during a specific timeframe, typically one year, as employed in the present investigation. It is anticipated that the rise in the growth rate of the construction and real estate sector will lead to an increase in the influx of FDI into Nigeria. This phenomenon can be attributed to the positive correlation between the sector's output and the willingness of investors to allocate their resources to the sector. The increase in output leads to a surge in demand for the sector's products, subsequently attracting more investors to invest in the sector. Moreover, this surge in production makes investors to perceive the sector as highly lucrative, offering opportunities for investments with a good return. Therefore, it is anticipated that there will be a positive correlation between CRES and FDIG.

Growth Rate of Mining and Quarrying/Sector Output (MIQU): This simply refers to the proportionate rise in the mining and quarrying sector's unit of output over a period of time, usually a year as utilised in this study. Increased output growth in the mining and quarrying sector is predicted to improve the flow of FDI into Nigeria. This is because as the industry's output grows, more investors will be prepared to invest in the sector as a result of increased market demand for the products. Furthermore, the increase in output leads investors to view it as a particularly vibrant area in which they may easily profit. As a result, we anticipate a positive association between MIQU and FDIG.

Growth Rate of Transportation and Storage Sector Output (TSSE): this simply refers to the proportionate growth in the transportation and storage sector's output unit over a time period, often a year as employed in this study. The output growth rate for the transportation and storage industry is anticipated to expand, which will enhance the amount of FDI entering Nigeria. This is due to the fact that when a sector's output grows, more investors would be ready to invest in it due to the increase in demand for the products. Investors also perceive it as a very vibrant industry in which they can readily realise capital gains as a result of this growth in output. So, we anticipate a favourable correlation between TSSE and FDIG.

Growth Rate of Information and Communication Sector Output (ICS): This merely refers to the proportional increase in output per unit of the information and communication sector over a period of time, typically one year in this study. Increase in the output growth rate of the information and communication sector is anticipated to increase the flow of FDI into Nigeria. This is because, as the sector's output rises, more investors will be prepared to invest in the sector due to a greater demand for their products on the market. In addition, this increase in output encourages investors to view this industry as one in which they can readily generate earnings. Therefore, we anticipate a favourable relationship between ICS and FDIG.

Growth Rate of Manufacturing Sector Output (MSE): This simply refers to the proportionate rise in the manufacturing sector's unit of output over a period of time, usually a year as utilised in this study. Increased production growth in the manufacturing sector is predicted to improve the flow of FDI into Nigeria. This is because as the industry's output grows, more investors will be prepared to invest in the sector as a result of increased market demand for their products. Furthermore, the increase in output leads investors to view it as a particularly vibrant area in which they may easily profit. As a result, we anticipate a positive association between MSE and FDIG.

Based on the forgoing, the relationship between foreign direct investment inflows and sectoral opportunity growth in Nigeria can be modeled as follows:

$$\text{FDIG} = f(\text{AGR}, \text{MSE}, \text{MIQU}, \text{ICS}, \text{TSSE}, \text{CRES}) \quad 3.1$$

The mathematical equation is;

$$\text{FDIG}_t = \beta_0 + \beta_1 \text{AGR}_t + \beta_2 \text{MSE}_t + \beta_3 \text{MIQU}_t + \beta_4 \text{ICS}_t + \beta_5 \text{TSSE}_t + \beta_6 \text{CRES}_t \quad 3.2$$

The econometric equation is;

$$\text{FDIG}_t = \beta_0 + \beta_1 \text{AGR}_t + \beta_2 \text{MSE}_t + \beta_3 \text{MIQU}_t + \beta_4 \text{ICS}_t + \beta_5 \text{TSSE}_t + \beta_6 \text{CRES}_t + \mu_t \quad 3.3$$

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and $\beta_6 > 0$

Where, FDIG = Foreign direct investment growth rate, AGR = Agricultural sector output growth rate, MSE = Manufacturing sector output growth rate, MIQU = Mining and quarrying sector output growth rate, ICS = Information and communication sector output growth rate, TSSE = Transportation and storage sector output growth rate, CRES = Construction/real estate sector output growth rate, β_0 = Intercept, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 = Constant parameters, μ_t = Error term

The Granger Causality model is given as;

$$Y_t = \alpha + \sum_{k=1}^k \beta_k Y_{t-1} + \sum_{k=1}^i \delta_k X_{t-1} + \epsilon_t \dots \quad 3.4$$

$$X_t = \alpha + \sum_{k=1}^k \beta_k X_{t-1} + \sum_{k=1}^k \delta_k Y_{t-1} + \epsilon_t \quad 3.5$$

Results and Discussion

Results

Descriptive Statistics

Table 1 shows the summary descriptive features of the study variables.

Table 1 Descriptive Statistic Result

	FDIG	AGR	CRES	MIQU	TSSE	ICS	MSE
Mean	0.522409	0.165850	0.206344	0.262067	0.145625	0.202853	0.188808
Median	0.215941	0.111387	0.128700	0.129976	0.093714	0.093685	0.138549
Maximum	7.076708	0.713073	2.024434	2.294487	0.874528	1.856873	0.943850
Minimum	-0.662329	-0.046493	-0.058245	-0.337295	-0.054830	0.002391	-0.058832
Std. Dev.	1.292982	0.176472	0.334440	0.503289	0.175663	0.319143	0.221164
Skewness	3.776425	1.464886	4.505648	1.952443	2.503526	3.966335	2.161592

Kurtosis	19.16221	4.395466	25.00064	8.236155	10.01291	20.76094	7.279687
Jarque-Bera	490.6547	16.23513	871.3988	65.77591	114.4711	583.3334	57.05037
Probability	0.000000	0.000298	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	19.32914	6.136468	7.634715	9.696476	5.388109	7.505569	6.985895
Sum Sq. Dev.	60.18490	1.121131	4.026602	9.118777	1.110871	3.666689	1.760879
Observations	37	37	37	37	37	37	37

Source: E-views 10.0 Output

Table 1 shows the average annual growth rates of FDI (FDIG), agricultural (AGR), construction/real estate (CRES), mining and quarrying (MIQU), transportation and storage (TSSE), information and communication (ICS), and manufacturing (MSE) sectors are 0.522409, 0.165850, 0.206344, 0.262067, 0.145625, 0.202853, and 0.188808, respectively. In same order, there smallest and largest growth rates are -0.662329 and 7.076708, -0.046493 and 0.713073, -0.058245 and 2.024434, -0.337295 and 2.294487, -0.054830 and 0.874528, 0.002391 and 1.856873, and -0.058832 and 0.943850. The level of disparity of FDIG, AGR, CRES, MIQU, TSSE, ICS and MSE from their means are 1.292982%, 0.176472%, 0.334440%, 0.503289%, 0.175663%, 0.319143%, and 0.221164%, respectively. All the variables are skewed to the right (3.776425, 1.464886, 4.505648, 1.952443, 2.503526, 3.966335, and 2.161592, respectively) and at the same time leptokurtic as FDIG, AGR, CRES, MIQU, TSSE, ICS and MSE values (19.16221, 4.395466, 25.00064, 8.236155, 10.01291, 20.76094, and 7.279687, respectively) are above 3. In terms of normality as represented by the Jarque-Bera p-values, FDIG, AGR, CRES, MIQU, TSSE, ICS and MSE are not normally distributed as their values (0.000000, 0.000298, 0.000000, 0.000000, 0.000000, 0.000000, and 0.000000, respectively) are below 0.05 level.

Table 2: Augmented Dickey Fuller (ADF) Stationarity Test Variables

Variables	First Difference Data			Conclusion
	ADF Test Statistics	T-Critical at 5%	P-value	
FDIG	-7.411069	-2.945842	0.0000	I(1)
AGR	-2.973732	-2.948404	0.0473	I(1)
CRES	-5.625430	-2.945842	0.0000	I(1)
MIQS	-5.274492	-2.948404	0.0001	I(1)
ICS	-3.677531	-2.945842	0.0088	I(1)
MSE	-6.156436	-2.948404	0.0000	I(1)
TSSE	-5.404682	-2.948404	0.0001	I(1)

Source: E-views 10.0 Output

Table 2 demonstrates that all the variables are stationary at the first difference at the 5% level. The absolute values of the ADF test statistics are comparatively higher than their corresponding Mackinnon's critical values at the 5% level of significance for each variable, and their corresponding p-values were significant at 5%, which is the acceptable and rejected zone. As a result, the study adopts the Johansen co-integration technique to verify the presence of long-run form.

Table 3: Johansen Co-integration Test

Date: 07/06/23 Time: 21:06
 Sample (adjusted): 1988 2022
 Included observations: 35 after adjustments
 Trend assumption: Linear deterministic trend
 Series: FDIG AGR CRES MIQU MSE TSSE ICS
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.935151	204.4842	125.6154	0.0000
At most 1 *	0.706472	108.7350	95.75366	0.0047
At most 2	0.531481	65.83269	69.81889	0.0998
At most 3	0.357560	39.29646	47.85613	0.2487
At most 4	0.291668	23.80958	29.79707	0.2086
At most 5	0.201973	11.74008	15.49471	0.1698
At most 6	0.256328	15.08398	15.49471	0.0576

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.935151	95.74918	46.23142	0.0000
At most 1 *	0.706472	42.90234	40.07757	0.0234
At most 2	0.531481	26.53623	33.87687	0.2890
At most 3	0.357560	15.48688	27.58434	0.7088
At most 4	0.291668	12.06949	21.13162	0.5408
At most 5	0.201973	7.896434	14.26460	0.3893
At most 6	0.256328	10.36545	14.26460	0.1890

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Source: E-views10.0 Output

Table 3 shows that the presence of at two co-integrating equation for both the Max-Eigen and Trace statistics at the 5% level. Thus, we conclude that there is the presence of long-run form among the variables. Based on this, the study adopts the parsimonious error correction model (ECM) to verify the extent to which errors in the short-run are corrected in the long-run.

Table 4: Parsimonious ECM Test

Dependent Variable: D(FDIG)

Method: Least Squares

Date: 07/06/23 Time: 21:10

Sample (adjusted): 1987 2022

Included observations: 36 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(AGR)	1.415819	1.135482	1.246888	0.2228
D(CRES)	-0.241019	0.369218	-0.652782	0.5192
D(MIQU)	0.964207	0.271995	3.544938	0.0014
D(MSE)	2.344052	1.100345	2.130287	0.0421
D(TSSE)	-5.988332	2.067744	-2.896071	0.0073
D(ICS)	1.802596	1.033863	1.743554	0.0915
ECM(-1)	-0.499013	0.152153	-3.279673	0.0026
C	-0.028896	0.165336	-0.174769	0.8625
R-squared	0.814799	Mean dependent var	-0.014904	
Adjusted R-squared	0.768499	S.D. dependent var	2.060289	
S.E. of regression	0.991298	Akaike info criterion	3.013527	
Sum squared resid	27.51482	Schwarz criterion	3.365420	
Log likelihood	-46.24349	Hannan-Quinn criter.	3.136347	
F-statistic	17.59820	Durbin-Watson stat	1.967261	
Prob(F-statistic)	0.000000			

Source: E-views 10.0 Output

The Adjusted R-squared of the Parsimonious ECM test is 0.768499. This means that AGR, CRES, MIQU, TSSE, ICS and MSE account for 76.8% of the variation in FDI growth rate, with the remaining 23.2% accounted for by factors not included in the model but indicated by the error term. The F-statistic p-value of 0.000000 shows that the model is statistically significant and of a good fit. Additionally, the Durbin Watson stat of 1.967261 demonstrates that the model is free from first order serial correlation.

Table 4 shows that agricultural and information and communication sector growth rate are positive (1.415819 and 1.802596) but insignificant (0.2228 and 0.0915) to FDI growth rate respectively. This suggests that a unit increase in AGR and ICS will cause FDIG to rise by 1.415819 and 1.802596 units respectively. Manufacturing and mining and quarrying sector growth rate have positive (0.964207 and 2.344052) and significant (0.0014 and 0.0421) influence on FDIG respectively. This means that increase in MSE and MIQU by a unit will cause FDIG to rise by 0.964207 and 2.344052 units respectively. Construction/real estate sector growth rate is negative (-0.241019) and insignificant (0.5192) to FDIG. This follows that a rise in CRES will lead to a decrease in FDIG by 0.241019 unit. Transportation and storage sector growth rate is negative (-5.988332) but significant (0.0073) to FDIG. This follows that a rise in TSSE will lead to a decrease in FDIG by 5.988332 units. Next is the examination of the speed at which errors in the short-run are corrected in the long-run.

Table 4 shows that the ECM (-1) is -0.499013 and significant (0.0026). This depicts that errors in the short-run are corrected at the 49.9% in the long-run. This is because its coefficient value is negative and significant at the 5% level. In another way, we can say that disequilibrium that occurs in the short-run are revert in the long-run at a speed of 49.9%. The next is determination of the causality that exist between the variables.

Table 5: Granger Casualty Test

Pairwise Granger Causality Tests

Sample: 1986 2022

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
AGR does not Granger Cause FDIG	36	2.31143	0.1380
FDIG does not Granger Cause AGR		0.01446	0.9050
CRES does not Granger Cause FDIG	36	0.57491	0.4537
FDIG does not Granger Cause CRES		0.37129	0.5465
MIQU does not Granger Cause FDIG	36	0.00115	0.9731
FDIG does not Granger Cause MIQU		0.23819	0.6287
TSSE does not Granger Cause FDIG	36	0.42261	0.5201
FDIG does not Granger Cause TSSE		1.20507	0.2803
ICS does not Granger Cause FDIG	36	1.34433	0.2546
FDIG does not Granger Cause ICS		0.07467	0.7864
MSE does not Granger Cause FDIG	36	2.56172	0.1190
FDIG does not Granger Cause MSE		1.22645	0.2761

Source: E-views 10.0 Output

At the 5% level, table 4.6 shows that there is no directional support from either any of the independent variables (AGR, CRES, MIQU, TSSE, ICS, and MSE) to the dependent variable (FDIG) and vice versa. This connotes that neither any of the size of the respective sector is a factor that determines FDIG nor FDIG is a determinant of the growth of the sectors.

Post Estimation Test**Table 6: Multicollinearity Test Result**

Variance Inflation Factors

Sample: 1986 2022

Included observations: 36

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
D(AGR)	2.178632	4.926835	2.478257
D(CRES)	0.319094	1.869914	1.359040
D(MIQU)	0.237281	2.925978	2.257373
D(TSSE)	4.841912	9.580305	5.691425
D(ICS)	1.002297	5.495359	3.876752
D(MSE)	2.617812	8.463438	4.876147

Source: E-views 10.0 Output

According to Sheather (2009), if the VIF > 10 , there is evidence of multicollinearity among the variables and vice versa. Table 6 shows that none of the variables have a value of above 10. Based on this, the study concludes that there exist no form of multicollinearity among the variables at the 5% level.

Table 7: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.434738	Prob. F(2,26)	0.6521
Obs*R-squared	1.164934	Prob. Chi-Square(2)	0.5585

Source: E-views 10.0 Output

As indicated in Table 4.8, the residual serial correlation LM test has a p-value of 0.6521, which is greater than the 5% level of significance. As a result, the null hypothesis that the residual has no autocorrelation is accepted.

Table 8: Heteroskedasticity Test

Heteroskedasticity Test: Harvey

F-statistic	0.278164	Prob. F(7,28)	0.9573
Obs*R-squared	2.340703	Prob. Chi-Square(7)	0.9386
Scaled explained SS	4.102101	Prob. Chi-Square(7)	0.7679

Source: E-views Output

The p-value of the heteroscedasticity statistics in Table 4.9 is 0.9573, which is greater than the 5% limit. As a result, the homoscedastic residuals null hypothesis is accepted.

Discussion of Findings

From the foregoing analysis, the findings of the study show that the estimations from the short-run and long-run analysis are in a great deal of agreement with one another. Manufacturing and mining/quarrying sectors, both in the long and short run, are highly correlated with FDI inflows growth rate in Nigeria. On the other hand, agricultural and information/communication sectors do not significantly correlate with the growth of FDI inflows, whereas construction/real estate demonstrates a negative and negligible link with the FDI inflow growth rate. Contrarily, transport and storage sectors have a negative but substantial link with the growth rate of FDI inflow.

Agricultural sector growth rate promotes FDI growth rate inflows but not substantially. This means that growth in agricultural sector stimulates the inflow of FDI in Nigeria but this increase is not significant. The reason for the positive but insignificant link can be attributed to the perishability of agricultural produce, the incessant political and social unrest, theft, and unpredictable atmospheric conditions that affect the output of agricultural. All of these leads to the insignificant amount of investment from foreigners into this sector. Another plausible reason could be the issue of land tenure system that makes it relatively uneasy for foreigners to obtain large expanse of arable land for agricultural purpose. This is because all lands in the Nigerian state are owned and controlled by their respective Governors who may not be willing to part with large expanse of arable lands due to sentiments and fear of falling out of favour of her citizens. This is similar with Waliu (2017),

Ayanwale(2007), Ola, Akintaro, and Adediwura, (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019), Akarara and Ouseibai (2022), Olanrele and Awode (2022) who found that FDI inflows are very important in contributing to economic growth. However, it disagrees with the study of Nwosa (2018) that FDI contributes negatively to economic growth.

Growth in Construction/real estate retards growth in FDI but not substantially. This implies that growth in construction/real estate does not spur FDI growth and it is insignificant. This is attributed to the issues of rising inflation that makes the relative cost of materials more expensive, escalating insecurity, poor economic policies, and land tenure system currently in practice in Nigeria. This is in consensus with the study of Nwosa (2018) that FDI retards economic growth. However, it agrees with Waliu (2017), Ayanwale(2007), Ola, Akintaro, and Adediwura (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019) that there is a positive relationship between FDI and economic growth.

Growth in mining and quarrying sector significantly spurs growth in FDI inflow into Nigeria. This means that as the size of the mining and quarrying sector grows, more FDI inflow will be attracted into the sector. This is because as the mining and quarrying sector grows, more foreign investors will be attracted into the sector as a result of higher return on the capital that will be invested; thus, generating significant inflow of FDI into the sector. This is similar with Waliu (2017), Ayanwale (2007), Ola, Akintaro, and Adediwura, (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019), Akarara and Ouseibai (2022), Olanrele and Awode (2022) who found that FDI inflows are very important in contributing to economic growth. However, it disagrees with the study of Nwosa (2018) that FDI contributes negatively to economic growth.

Growth in transportation and storage sector significantly declines FDI growth in Nigeria. This implies that the growth rate of the size of transportation and storage sector reduces FDI inflows in it. This is because as the sector grows, more advanced infrastructure will be needed to sustain the growth in this sector which is currently unavailable; thus, scaring away foreign investors from investing more in the sector. This is in consensus with the study of Nwosa (2018) that FDI retards economic growth. However, it agrees with Waliu (2017), Ayanwale(2007), Ola, Akintaro, and Adediwura, (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019) that there is a positive relationship between FDI and economic growth.

Growth in information and communication sector promotes FDI growth but not significantly in Nigeria. This implies that the growth rate of the size of information and communication sector increases FDI inflows; but this is not quite substantial. This is attributed to the high capital-intensive nature of equipment needed that has affected the growth of investment in this sector despite it being one of the highly rewarding investment sector. This agrees with Waliu (2017), Ayanwale(2007), Ola, Akintaro, and Adediwura, (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019) that there is a positive relationship between FDI and economic growth. However, it is in disagreement with the study of Nwosa (2018) that FDI retards economic growth.

Growth in manufacturing sector significantly spurs growth in FDI inflow into Nigeria. This means that as the size of the manufacturing sector grows, more FDI inflow will be attracted into the sector. This is because as the manufacturing sector grows, it supports the production of more goods and services which attracts more FDI inflows into the sector as a result of increase in the return of capital invested by multinational corporations. This follows the study of Waliu (2017), Ayanwale(2007), Ola, Akintaro, and Adediwura, (2020), Afolabi, Laseinde, Oluwafemi, Atolagbe, and Oluwafemi (2019), Akarara and Ouseibai (2022), Olanrele and Awode (2022) who found that FDI inflows are very

important in contributing to economic growth. However, it disagrees with the study of Nwosa (2018) that FDI contributes negatively to economic growth

Conclusions

The study's aim is to look into the relationship between FDI inflows and economic opportunity nexus in Nigeria using the various sectors as segregated by the CBN for a period spanning from 1986 and 2022. Economic size growth (volume of growth) of agricultural, construction/real estate, mining/quarrying, transportation/storage, information/communication, and manufacturing sectors as well as FDI inflows are the variables used in this study. The descriptive, unit root, Johansen co-integration, Parsimonious ECM, and the Granger Causality methods were used at the 5% level. According to the study, mining and quarrying, transportation and storage, and manufacturing sectors output are the most vibrant sectors that determines FDI inflows in Nigeria. To some extent, the result of the study tends to agree with Nnamdi and Eniekezimene (2018) that the sectoral microcredit allocations for real estate/construction, transportation/general commerce, and mining/quarrying are crucial for forecasting Nigeria's human development index. However, contrary to Nnamdi and Eniekezimene (2018) assertion, the author's results suggest that the manufacturing sector is really more significant in influencing FDI inflows growth than the construction/real estate sectors.

This study supports the eclectic paradigm of Dunning (1976) in relation to the resource-seeking and market-seeking tendencies for FDI inflows.

Recommendations

The study recommended that the issue of land tenure in Nigeria should be reviewed such that the federal government of Nigeria should have access to allocate expanse of lands to foreign investors for agricultural purposes as long as it meets the view of public interest. The federal government of Nigeria should continue to encourage more growth in the information and communication, manufacturing and mining and quarrying sectors in form of concessions, tax holidays as well as free production and export zones so as to increase the inflows of FDI. On the basis of transportation and storage sector, the federal government of Nigeria should find other sources that influence the sectors or at least discourage further spending that attempt to attract inflows of FDI into these sectors as doing so will mean waste of resources and efforts since they do not accelerate their growth.

References

- Afolabi, A., Laseinde, O. T., Oluwafemi, I. J., Atolagbe, O. D., & Oluwafemi, J. F. (2019, December). Correlation between manufacturing sectors and foreign direct investment. In *Journal of Physics: Conference Series* (Vol. 1378, No. 3, p. 032005). IOP Publishing.
- Akarara, E. A. & Ouseibai, S.M (2022). Foreign capital inflows and growth nexus in Nigeria. *Economic and Business Review*, 3(3), 78-92.
- Akpan, E. S. & Eweke, G. O. (2017). Foreign direct investment and industrial sector performance: Assessing the long-run implication on economic growth in Nigeria. *Journal of Mathematical Finance*, 7(2), 391-411.
- Ayanwale, A. B. (2007). FDI and economic growth: Evidence from Nigeria. Retrieved on 22/06/23 from: <https://www.researchgate.net/publication/4732701>
- Balance of Payments Manual Module 6 (2015).
- Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*. UK: Edward Elgar.
- Ekechukwu, F. C., Ebiringa, O. T., & Chris-Ejiogu, U. G. (2023). A Multi-Sectoral Analysis of Effects of Foreign Direct Investment on Nigeria's Output Growth.
- Kishor, N., Jamia Hamdard & Khan, M., (2020). Impact of motives of inward FDI on benefits perceived by foreign multinational enterprises investing in India. *American Review of Political Economy*, 15(1). 23-31. doi: <https://doi.org/10.38024/arpe.kks.6.28.204>
- Lloydsbank (2023). The market potential of foreign direct investment in Nigeria. Retrieved from <https://www.lloydsbanktrade.com/en/market-potential/nigeria/investment> 16/06/23
- Ndibe, B., Ojiula, U. B., & Asalu, E. (2021). Is Foreign Direct Investment the Way Forward for Manufacturing Sector Renaissance in Nigeria? *International Journal of Business*, 8(4), 245-256.
- Nnamdi, I. S. & Eniekezimene, D. E. (2018). Microcredit operations and human development nexus in Nigeria: A Multi-Sectoral Analysis. *Journal of Poverty, Investment and Development*, 42, 34-45.
- Nwosa, P. I. (2018). Foreign direct investment in Nigeria: Its role and importance in industrial sector growth. *Acta Universitatis Danubius. Economical*, 14(2), 41-52.
- Obayori, J.B., Obayori, E.L., Inimino, E.E. and Tubotamuno, B. (2016) Sectoral inflow of foreign direct investment and economic growth in Nigeria: A Conintegration analysis. *International Journal of Current Research*, 8, (03), 27806-27811.
- Ogbanje, E. C. & Salami, A. O. (2022). The impact of foreign direct investment on economic growth in Nigeria. *International Journal of Environment, Agriculture and Biotechnology*, 7(4), 161-171
- Ola, R. F. B., Akintaro, A. A. & Adediwura, M. O. (2020). Foreign direct investment and manufacturing output in Nigeria: An ARDL Approach. *International Journal of Management, Social Sciences, Peace and Conflict Studies*, 3(4), 78-89.
- Olanrele, I. A. & Awode, S.S. (2022). Assessing the nexus among energy consumption, foreign direct investment and economic growth in Sub-Saharan Africa. *CBN Journal of Applied Statistics*, 13(1), 27-53.
- Sheather, S. (2009). *A modern approach to regression with R*. Springer Science & Business Media.
- UNCTAD (2002). *World investment report 2002: Transnational corporations and export competitiveness*. Geneva: United Nations.
- UNCTAD (2019). *Handbook of Statistics (2019)*. Foreign direct investment
- Waliu, O. T. (2017). Foreign Direct Investment (FDI), Financial Development and Economic Growth in Nigeria: Evidence of Causal Relationships. *Int J Humanit Soc Sci Educ (IJHSSE)*, 4(7), 1-9.