

Determinants of Foreign Direct Investment Inflow to Nigeria

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Abstract: *The study examined the factors that determine FDI inflow in Nigeria. It specifically assessed the extent to which market capitalization, trade openness gross fixed capital formation and level of economic activities affect foreign direct investment inflow in Nigeria. An ex-post facto research design was adopted for the study. Time series data were collected from the CBN statistical Bulletin using the desk survey method and were analyzed using the ordinary least square multiple regression statistical technique. ADF and PP unit root were complementarily applied to test the stationarity of the time series. A correlation matrix was also used to check the relationship between all the variables. Result on the basis of the OLS revealed that there is a large inverse effect of market capitalization and gross fixed capital formation on FDI inflow in Nigeria. Also an over liberal trade policy is a disincentive for foreign direct investment in Nigeria. Finally, there exists a significant positive effect of level of economic growth on FDI attraction in Nigeria. On the basis of the ADF and PP test, all variable were stationary at first difference. Again, on the basis of the correlation matrix, all variables were strongly related except market capitalization, gross fixed capital formation and level of economic activities which had weak relation with FDI. Relying on these findings, the study recommends that growth-inducing policies should be formulated and promoted. Also government should introduce policies relating to increase loans, enhanced infrastructure, steady power supply and good road networks. Again border mismanagement and porosity should be discouraged by training and developing the Nigerian Customs and Immigration authorities. Finally, social unrest, corruption, macroeconomic instability should be discouraged and an investment friendly environment created in Nigeria to enhance investors confidence and courage.*

Keywords: *FDI; Market Capitalization; Trade openness and Gross Fixed Capital Formation.*

I. Introduction

Background of the Study

The insufficient nature of domestic investment coupled with the high dependence on oil revenue, high poverty rate, poor capacity utilization and the need to attain economic growth (Udoka, Tapang & Roland, 2012) suggest that an enabling environment be created for foreign investment inflow to Nigeria. Foreign investment inflow could be in form of foreign direct investment (FDI), foreign portfolio investment (FPI), official inflows (OI) and commercial loans (CL) (Jeffrey & Spaulding, 2005). According to Ndem, Okoronkwo & Nwamuo (2014), the composition of foreign investment inflow to developing countries in general and Nigeria in particular has shifted from commercial loans to foreign direct investment (FDI) and portfolio investment. Between the periods of 1970s to 1980s, commercial loans were the primary form of capital flow to the Nigerian economy. This was due to the restrictions and capital controls placed by the country as part of the policy of import substitution industrialization strategy aimed at conserving foreign exchange and protecting domestic industries (Ndem, Okoronkwo & Nwamuo, 2014).

Foreign direct investment (FDI) has been defined as an investment in a business by an investor from another country for which the foreign investor has control (10% or more voting stock) over the company purchased (OECD, 1998). It is the inflow of investment by a direct investor into a target country with a view of having controlling interest in the firm. It could take the form of investment in the equity capital of either a Greenfield or Brownfield company, reinvestment of the earnings in a firm and short term intra-company loans (Jeffrey & Spaulding, 2005).

The role of foreign direct investment in economic goal attainment cannot be overemphasized. Foreign direct investment creates employment; provides knowledge and skills transfer in the area of management and technology; facilitates local firms' access to international markets and finance; enhances international trade integration; facilitates human capital formation; provides avenues for risk and product diversification; encourages favourable competition among businesses and increases product diversity (see Ngowi, 2001, Nwankwo, Ademola & Kehinde, 2013 and Ebiringa & Emeh, 2013). Considering the above stated merits, countries the world over are striving to maintain a favourable investment climate in order to attract foreign direct investment.

Nigeria authorities, in a bid to attract foreign direct investment, have adopted several policies and strategic actions like the structural adjustment programme of 1986 and its privatization exercise, the industrial policy of 1989 which welcomed foreign investors to the industrial sector, the deregulation of the economy, the provision of tax relief and other incentives to investors and owners of equity in all industries, the signing of bilateral investment treaties and double taxation agreements, the promulgation and subsequent adoption of the Export Processing Zone Decree of 1991 and the establishment of the Nigerian Investment Promotion Commission (NIPC) through decree 16 of 1995 (Ndem, Okoronkwo & Nwamuo, 2014, Oladipo, 2013, and Uwubanmwen & Ajao, 2012). The establishment of anti-corruption bodies like the Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission (ICPC) was another bold step taken by the Nigerian government to attract foreign direct investment.

The conscientious strategic policies of government over the years were meant to regulate and control the investment climate of Nigeria via a reordering of macroeconomic, political, institutional, industrial and ethical factors influencing foreign direct investment inflow. Myriad of literatures are available on the factors that affect foreign direct investment in Nigeria. Borensztein, 1990, Ngowi, 2001, Lall, 2004, Akingube, 2003, Gastanaga, Jeffery & Bistra, 1998, Hanson, 2001 and Sachs, 2004 identified unfavourable and unstable taxation regimes, fiscal and monetary policies irresponsibility, infrastructural inadequacy, high level of corruption, political instability, poor access to world markets, slow pace of public policies, inadequacy of intellectual property protection, high volatility in exchange rates, high cost of production, unstable power supply and high level of inflation as some of the factors that inhibit the flow of foreign direct investment in developing countries and Nigeria. This study is therefore, designed to empirically examine the strength of relationship between the factors that influence FDI and the level of FDI in Nigeria.

1.1 Statement of the problem.

Foreign direct investors are scared of investing in Nigeria because of the high risk of doing business. Many already established firms are going down the drain as the day passes by. Workers are being laid off and the rate of unemployment is increasing at a rapid succession. Investors are delisting from the capital market even at its underdeveloped state and the government is relying completely on oil revenue for her survival, resulting in a comparatively slow pace of development.

In the light of the above, it becomes indubitable that the flow of FDI into the country is the only panacea, necessitating the need for government to clearly understand the factors that will promote FDI inflow. This is the main reason for undertaking this study in the hope that it will empirically isolate these factors and prioritize those that are critical to the Nigerian economy.

1.2 Objectives of the Study

The major objective of this study is to examine empirically the factors that determine FDI inflow in Nigeria. The specific objectives include

- (i) To examine the effect of market capitalization on FDI inflow in Nigeria;
- (ii) To ascertain the extent to which trade openness affects foreign direct investment inflow in Nigeria;
- (iii) To determine how gross fixed capital formation affects foreign direct investment inflow in Nigeria;
- (iv) To ascertain the impact of economic activities on FDI inflow in Nigeria.

1.3 Research Questions

The following questions are relevant for this study:

- (i) What effect does market capitalization have on foreign direct investment inflow in Nigeria?
- (ii) To what extent does trade openness affect foreign direct investment inflow in Nigeria?
- (iii) How does gross fixed capital formation affect foreign direct investment inflow in Nigeria?
- (iv) To what extent do economic activities impact on FDI inflow in Nigeria?

1.4 Research Hypotheses

The following hypotheses were formulated for the purpose of achieving the above stated objectives.

H₀: Market capitalization does not significantly affect FDI inflow in Nigeria;

H₀: Trade openness does not significantly impact FDI inflow in Nigeria;

H₀: Gross fixed capital formation does not significantly affect FDI inflow in Nigeria;

H₀: The level of economic activities does not exert any significant impact on FDI inflow in Nigeria

II. Literature Review And Theoretical Framework

Theoretical frameworks

This study is specifically meant to assess the impact of market capitalization, trade openness, gross fixed capital formation and the level of economic activities in attracting FDI into Nigeria. To give structure and direction to the empirical investigation, this study will be built on the foundation of the capital market theory and dynamic macroeconomic theory of Foreign Direct Investment.

The capital market theory is one of the oldest theories of FDI which holds that FDI is determined by the rate of interest charged by the host countries financial institutions. As a portfolio investment theory, the capital market theory identifies three factors which attract FDI to developing Countries like Nigeria (Boddewyn, 1985). First is the undervalued exchange rate, which allows lower production costs in the host countries. Less developed countries currencies are lowly price relative to those of the developed countries. Hence, to take advantage of low cost of production, multinational companies move their capital into these countries. Second factor is the unorganized nature of the security market of Less Developed Countries which makes multinational firms to invest in FDI rather than portfolio investments. Finally, the capital market theory assumes that foreign investors have limited knowledge about the host Countries securities and hence prefers FDI which allows control of host country assets (Morgan & Katsikeas, 1997).

The dynamic macroeconomic FDI theory states that FDI is a long term function of multinational companies' strategies. According to this theory, the timing of investments is dependent on the changes in the macroeconomic environment (Sanjaya, 1997), namely, gross domestic product, domestic investment, real exchange rate, productivity, capital formation and openness.

2.2 Empirical Review

The critical role played by FDI in the industrial development of countries has given rise to preponderance of empirical studies. Many of these studies sought to investigate the role played by FDI in economic growth while others focused on the determinants of FDI inflow. We therefore review some of these studies below

Ebiringa & Emeh (2013) investigated the determinants of FDI in Nigeria. Using time series econometrics techniques incorporating stationarity test, co-integration, error correction mechanism and variance decomposition analysis, revealed that Exchange rate exerts a long run negative effect on FDI flows in Nigeria. Also, Danish & Adiq (2012) studied FDI, Trade openness and real output, using error correction model, the authors revealed that trade openness relate significantly with FDI in Nigeria.

Serven & Solimano (1992) also investigated economic adjustment and FDI performance for fifteen developing countries; they pooled cross sectional time series data from 1975 to 1988. The investment equation estimated in the study used exchange rate and inflation as proxies for instability and in such case instability was measured by the coefficient of the variation of relevant variable over three years. The two measures were found to be jointly significant in producing negative effect on investment.

Olumigina (2003) in the test conducted using OLS, found market exchange rate in the official market as being significant at 10% for FDI to agricultural sector, the same is however not significant for manufacturing. He, therefore, concluded proper management of the exchange rate to forestall costly distribution, constitute an important pillar in determining flows of FDI to Nigeria and sub-Saharan African countries.

Obanda (1982) and Anyanwu (2006) both investigated the economic determinants of FDI inflow in Nigeria. Applying the OLS technique, their findings revealed that market size is a strong determinant of FDI inflow in Nigeria.

Asiedu (2003), in his work used panel data for 22 countries in sub-Saharan African over the period of 1984-2000 to examine the impact of political risks, institutional framework and government policy on the FDI flows. The dependent variable was the rate of the net FDI flows to GDP while the independent variable used include natural resource intensity, attractiveness of the host country's market, infrastructural development, macro economic instability, openness to FDI, host country institution and political instability. His result showed that macroeconomic stability, efficient institution, political stability and goods regulatory framework have positive impact on FDI. An importation implication of the result is that FDI to Africa is not solely driven by natural resources endowment and that government can play an important role in promoting FDI to Less Developed regions.

Ohazulike (2012) studied the effect of exchange rate fluctuations, infrastructure and inflation on FDI inflow in Nigeria. Using econometric tools of OLS multiple regression, unit root, co-integration and Granger causality tests to analyse the data, it was revealed on the one hand that exchange rate fluctuations and infrastructure had positive but insignificant relationships with FDI while on the other hand inflation was negatively but significantly related with FDI in Nigeria. The study also revealed a unidirectional relationship between inflation and FDI.

Olukoyo (2012) examined the effects of foreign direct investment on the development of Nigerian economy, applying the ordinary least square regression technique to test the time series data from 1970 - 2007 and the Cochrane-Orcutt iterative method to correct for autocorrelation. The regression analysis result did not provide much support for the view of a robust link between and economic growth in Nigeria.

Adaramola & Obisesan (2015) assessed the impact of foreign direct investment on the Nigeria capital market. The study employed the ADF unit root test and the Johansen co-integration test to analyse the data, the result suggested the absence of co-integration between FDI and market capitalization. Hence, the study resorted to the OLS technique which proved a positive and significant relationship between FDI and market capitalization in Nigeria.

Applying the purely descriptive narrative methods, Nwankwo, Olukotun & Olorunfemi (2013) studied the effect of globalization on FDI in Nigeria. The study revealed that, while FDI has been of increased benefit to Nigeria in the area of employment, technology transfer, local enterprise development, etc., there exist some impediments to the full realization of the benefits of FDI in Nigeria.

In studying the determinants of FDI and their impact in Nigeria, Ndem, Okoronkwo & Nwamuo (2014) sought to ascertain the relationship between exchange rate, market size, infrastructural investment, openness, political risk and the flow of FDI. Adopting the OLS and the co integration error correction method (ECM), it was revealed that market size, openness and exchange rate impacted much on FDI inflow while political risk was unfavourable to it, infrastructural investment was favourable but marginal in attracting FDI.

Lautier & Moreaub(2012) investigated domestic investment and FDI in developing countries, using a sample of 68 countries and GFCF as a proxy for domestic investment, the authors applied the OLS method to analyse the data. The study revealed a large positive relationship between domestic investment (GFCF) and FDI for all countries and therefore concluded that domestic investment is a strong determinant of FDI in less developed countries.

Soumyananda (2010) empirically investigated the factors that determine FDI to Nigeria. Applying the co-integration technique, it was revealed that the endowment of natural resources, trade intensity, macroeconomic risk factors like inflation and exchange rates are significant determinants of FDI flow to Nigeria. The study also showed that in the long run market size is not a significant factor for attracting FDI to Nigeria.

Obida & Abu (2010) examined the determinants of FDI in Nigeria. The error correction technique was employed to analyze the relationship between market size, deregulation, political instability, exchange rate depreciation and foreign direct investment. The results reveal that the market size of the host country, deregulation, political instability, and exchange rate depreciation are the main determinants of foreign direct investment in Nigeria.

Adefoso & Agboola (2012) also investigated the determinants of FDI in Nigeria. Using Residual-Based Engel-Granger Dickey-Fuller Co-integration test and a unit root test to test the properties of the time series of the variables. It was revealed that there was a significant relationship between market size, openness, ICT, oil sector, tax, tourism, phone penetration and the inflow of FDI in Nigeria in the long run. The study also showed that changes in exchange rate, CPI, infrastructure and external debt respectively accounted for changes in FDI outflow from Nigeria.

FDI and Government Policies in Nigeria

Government policies towards trade and foreign investment are significant in determining foreign investment. At the broadest level, governments may pursue either an export promoting or import substituting strategies. The Nigerian Government has at one point or the other developed policies, plans and strategic efforts meant to shape or/reshape the investment horizon of Nigeria. As recorded by Ohiorhenuan (1990), more than 25 percent of the companies registered in Nigeria in 1956 were foreign-owned while in 1963 as much as 70 per cent of investment in the manufacturing sector was from foreign sources. This surge in foreign firms, in addition to the need to broaden the economic base of Nigeria, maintain the rhetoric development of that era and reduce the risk of over-reliance on foreign trade resulted in the first development plan of 1962-1968. To this end, a new tariff structure was formulated with industrialization and import substitution in mind. This work vigorously well until the introduction of foreign exchange and import license control in 1971 and 1972 halted the system.

The halting of the object of the first national development plan saw the need to adopt an indigenization policy during the second national development plan (1970-1974) in Nigeria. This started in 1972 with “the Nigerian Enterprises Promotion Decree” (NEPD). The decree imposed several restrictions on FDI entry. As a result, some 22 business activities were exclusively reserved for Nigerians, including advertising, gaming, electronics manufacturing, basic manufacturing, road transport, bus and taxi services, the media and retailing and personal services. Foreign investment was permitted up to 60 percent ownership and provided that the proposed enterprise had, based on 1972 data, share capital of N200,000 (\$300,000) or turnover of N500,000 (\$760,000) (see, Nigerian investment policy Review 2009).

After the exacerbated increase in the world oil prices in 1973, there was need for a third national development plan (1975-1980) which saw the apex of the indigenization policy in 1977. Legislation saw the need to review of the Nigerian Enterprises Promotion Decree (NEPD) of 1972. The 1977 indigenization policy tightened restrictions on FDI entry in three ways: first, by expanding the list of activities exclusively reserved to Nigerian investors (e.g. bus services, travel agencies, the wholesaling of home products, film distribution, newspapers, radio and television and hairdressing); secondly, by lowering permitted foreign participation in the FDI-restricted activities from 60 to 40 per cent and adding new activities restricted to 40 per cent foreign ownership such as fish-trawling and processing, plastic and chemicals manufacturing, banking and insurance; and finally, by creating a second list of activities were permitted, foreign investment was reduced from 100 to 60 per cent ownership, including manufacturing of drugs, some metals, glass, hotels and oil services companies.

With the collapse of oil prices in the early 1980s, the weaknesses of the past economic plans were unravelled as the agricultural export experience a sharp accounting for less than 10 percent of the total export, manufacturing output fell at about 2 percent per annum between 1982 and 1986, GDP experienced a stagnated short fall with about 1 percent annual growth, the country had become a net importer of food. Furthermore, by 1986, there were about 1,500 State-owned enterprises, of which 600 were under the control of the federal Government and the remainder under State and local Governments. The evidence suggests that many made no contribution to Nigeria's productive capacities and many of the enterprises were financially unviable (Mahmoud, 2004).

Suddenly, it began to done on policy makers to restore economic prosperity and address external shocks such as the global recession of the early 1980s, the Government initiated a series of austerity measures and stabilization initiatives in 1981– 1982. These, however, proved unsuccessful and a structural adjustment programme (SAP) followed. The SAP (1986–1988), which emphasized privatization, market liberalization and agricultural exports orientation, was not implemented consistently and was at odds with other facets of policy, e.g. tariff increases (Nigerian investment policy Review 2009). All these culminated to inform the need to relax the restrictions in 1989. The NEPD was amended so as to leave a single group of 40 business activities in which foreign participation was completely prohibited unless the value of the enterprise exceeded N20 million (\$2.7 million in 1989). In addition, foreign investors could hold only a share of up to 40 percent in insurance, banking, oil production and mining. Finally, in 1995, the Nigerian Investment Promotion Commission Act opened all sectors to foreign participation except for a short negative list (including drugs and arms) and allowed for 100 per cent foreign ownership in all sectors, with the exception of the petroleum sector (where FDI is limited to joint ventures or production sharing).

Following the return to democracy in May 1999, the reform process was re-energized, mainly through Nigeria's home-grown poverty reduction strategy. The National Economic Empowerment and Development Strategy (NEEDS), adopted in 2003, were meant to guide public policies until 2007. The preparation of NEEDS followed a highly participatory process. Associated poverty reduction strategies were developed at the State and local levels – State Economic Empowerment and Development Strategies (SEEDS) and Local Economic Empowerment and Development Strategies (LEEDS). NEEDS, SEEDS and LEEDS were major departures from the policies of the past. Their broad agenda of social economic reforms according to Nigerian investment policy Review (2009) was base on four key strategies to: reform the way government works in order to improve efficiency in delivering services, eliminating waste and free up resources for investment in infrastructure and social services; Make the private sector the main driver of economic growth, by turning the Government into a business regulator and facilitator; Implement a “social charter”, including improving security, welfare and participation; and Push a value re-orientation by shrinking the domain of the State and hence the pie of distributable rents which have been the haven of public sector corruption and inefficiency. In contrast with previous development plans, NEEDS made FDI attraction an explicit goal for the Government and paid particular attention to drawing investment from wealthy Nigerians abroad and from Africans in the Diaspora.

III. Research Methodology

Research Design

A research design constitutes the core of formal research. This is because it does not only guide the conduct of the enquiry, but also provides the design for the testing of the formulated hypotheses. Thus, a research design according to Etuk (2010) is a framework of controlling the collection, measurement and analysis of data by ensuring accuracy and economy. To this end, an ex-post facto design is used in this study. The choice of this design is based on the fact that it does not provide the study an opportunity to control the variables mainly because they have already occurred and cannot be manipulated.

Methods of Data Collection

Time series data were collected for the period between 1983 and 2013 on Foreign Direct Investment, market capitalization, trade openness gross fixed capital formation and level of economic activities. The desk survey method was used to extract data on the variables from the publications bearing in mind the study objectives and hypotheses

Techniques of Data Analysis

The analytical and interpretational tools employed comprise simple statistical as well as comparative analyses using tables (charts) representative. The ordinary least square multiple regression analytical technique and its interpretation will be used. The adoption of this technique is because it minimizes the error sum of square and has minimum variance, efficiency, unbiasedness and consistency as its advantages; it is widely used due to its BLUE (Best, Linear, Unbiased, Estimate) property and is easy to understand (Koutsoyannis, 1977). The study also applies the correlation matrix to test the extent to which the variables are correlated. Finally, unit root test was conducted using the Augmented Dickey Fuller (ADF) and the Phillips Perron (PP) tests to determine whether or not the time series are stationary.

Model Specification.

In view of the dynamic nature of the study, an econometric equation was formulated on the basis of which the relationship between the variables (dependent and independent) was determined. The regression of the independent variables of market capitalization, trade openness, gross fixed capital formation and level of economic activities on the dependent variable of foreign direct investment were estimated using the ordinary least square (OLS) method due to its characteristics of being the best linear unbiased estimator. The model is stated thus:

$$FDI = F(MC, OPN, GFCF, LEA)$$

Which leads to an ordinary least square formulated as:

$$FDI = a_0 + b_1MC + b_2 OPN + b_3GFCF + b_4LEA + e_t$$

Where:

FDI=	Foreign Direct Investment
MC	= Market Capitalization
OPN	= Trade openness (export plus import upon GDP)
GFCF	= Gross Fixed Capital Formation
LEA	= Level of Economic Activities
e_t	= Stochastic Error Term.

Validations technique

On an a priori basis, we expect market capitalization to be negative (-), trade openness to be positive (+), gross fixed capital formation to be negative (-) and level of economic activities to be positive (+). The result will also be evaluated using statistical criteria. This will include the R^2 , t-statistics and f-statistics. R^2 will be used to test the explanatory power of the model and is expected to assume the value ($0 < R^2 < 1$). The closer the R^2 value to one the higher the fit of the model. The t-statistics will be used to evaluate the individual statistical significance of the respective parameters at 5% level. We expect that $t_{cal} > t_{tab}$ for all parameters. F-statistics will be applied to test the overall significance of the model. The higher the F-statistics value, the greater the explanatory power of the model. Finally, we will evaluate the result on econometric basis using the d-w statistics. We expect the calculated d-w value to fall within the no autocorrelation region.

IV. Data Presentation Analyses And Discussion Of Findings

Data presentation

The data collected in relation to the determinants of FDI in Nigeria is presented in table 4.1; click this link to view the data. [Data Presentation.docx](#)

Analysis of Data

The beginning step in the estimation of a linear relationship is the testing procedure to find out the characteristics of the time series data. This procedure and the regression results will now be presented and analysed; click table 4.2 to view regression result. [Table 4.2.docx](#)

The result in table 4.2 above revealed that there exist an inverse relationship between market capitalization and the inflow of FDI in Nigeria. This is in tandem to the a priori criteria. The parameter entered the model with a negative sign implying that a one percent increase in the market capitalization resulted in a 2.8059 billion decrease in the inflow of FDI to Nigeria. The empirical result also revealed that there exist a positive relationship between trade openness and FDI inflow to Nigeria. The more liberalized or receptive the

Nigerian economy is the more the FDI attraction into Nigeria. Stated in some worth differently, a one percent increase in trade openness results in a 1.4847 billion increase in FDI inflow to Nigeria. Furthermore, the result revealed that gross fixed capital formation has an inverse relationship with FDI inflow in Nigeria. In other words, a one percent increases in gross fixed capital formation, results in 2.1924 billion Naira decrease in FDI inflow. Finally, the a priori expectation about the signs of economic activities conformed to economic theory. The parameter entered the model with a positive sign implying that an increase in the level of domestic economic activities enhances FDI inflow to Nigeria.

The goodness of fit of model as indicated by their R^2 value of 0.7608 or 76.08% indicated that the model fits the data well, the total variation in the observed behaviour of FDI is jointly predicted or explained by the variations in market capitalization, trade openness, gross fixed capital formation and level of economic activities up to 76.08%, the remaining 23.92% is accounted for by the disturbance term. The overall significance of the model was also tested using the ANOVA or f-statistics. Here the high significance of the f-statistics value of 20.6746 confirmed that the high predictability of the model did not occur by chance, it actually confirmed that the model fitted the data well.

We also tested for the presence of autocorrelation in the residual of the model using the d-w statistics, the test revealed that the calculated d-w value of 1.8902 fell within the no autocorrelation region of the d-w table. Hence we conclude that the model is free from the first order autocorrelation problem.

Table 4.3 presents the unit root tests for all the variables used in the equations. The test is conducted using two different unit root models. That is, the Augmented Dickey Fuller (ADF) model and the Philips - Perron (PP) model. The essence of using the two testing procedures is for confirmatory purpose. All variables were regarded as non stationary at their levels since each reported t-value was not significant at level of ADF and PP with a sample size of 31. The null hypothesis of non stationary was accepted for all series investigated at level. This means that there is the presence of unit root in each of the variable investigated at level. However after the first difference of each variable, all variables became stationary at 1, 5 and 10% critical t value of ADF and PP respectively.

We further proceeded to analyze the strength of the relationship between the variables under investigation by running a correlation matrix of the variables. From table 4.4 the strength of relationship between market capitalizations, gross fixed capital formation, level of economic activities and FDI inflow in Nigeria is weak. This is evident in their correlation coefficients of 26.78%, 30.19% and 39.29% respectively. On the other hand, the correlation coefficient of 51.41% showed that there is a fairly strong relationship between FDI and trade openness in Nigeria.

Furthermore, there is a strong relationship between trade openness, gross fixed capital formation, level of economic activities and market capitalization in Nigeria. Their correlation coefficients of 83.99%, 98.89% and 98.68% respectively proved that the variables are strongly related and any policy decision that affects market capitalization will also affect gross fixed capital formation, trade openness and the level of economic activities in Nigeria.

Again, the relationship between gross fixed capital formation, level of economic activities and trade openness is highly strong. The result showed that the relationship between gross fixed capital formation and trade openness is 86.73% while the relationship between the level of economic activities and trade openness is 87.96%. Finally, there exists a strong relationship between the level of economic activities and gross fixed capital formation. This is evident in its high correlation coefficient of 98.86%.

Test of Hypotheses

Hypothesis one

H₀: Market capitalization does not significantly affect FDI inflow in Nigeria;

H₁: Market capitalization significantly affects FDI inflow in Nigeria;

Decision Rule

Accept H_0 : if calculated t-statistics value < table t-statistics value.'

Reject H_0 : if calculated t-statistics value > table t-statistics value.

From the regression result,

Calculated t-statistics value = 4.2183

Table t-statistics value = 2.056

Since the calculated t-statistics value of 4.2183 is greater than the table t-statistics value of 2.056 at 5% level of significance, we reject the null hypothesis and accept the alternative hypothesis. It therefore implies that Market capitalization significantly affect FDI inflow in Nigeria.

Hypothesis two

H₀: Trade openness does not significantly impact FDI inflow in Nigeria;

H₁: Trade openness significantly impact FDI inflow in Nigeria;

Decision Rule

Accept H_0 : if calculated t-statistics value < table t-statistics value.'

Reject H_0 : if calculated t-statistics value > table t-statistics value.

From the regression result,

Calculated t-statistics value = 1.4457

Table t-statistics value = 2.056

Since the calculated t-statistics value of 1.4457 is less than the table t-statistics value of 2.056 at 5% level of significance, we reject the alternative hypothesis and accept the null hypothesis. It therefore means that trade openness does not significantly impact FDI inflow in Nigeria.

Hypothesis three

H_0 : Gross fixed capital formation does not significantly affect FDI inflow in Nigeria;

H_1 : Gross fixed capital formation significantly affects FDI inflow in Nigeria;

Decision Rule

Accept H_0 : if calculated t-statistics value < table t-statistics value.'

Reject H_0 : if calculated t-statistics value > table t-statistics value.

From the regression result,

Calculated t-statistics value = 2.3480

Table t-statistics value = 2.056

Since the calculated t-statistics value of 2.3480 is greater than the table t-statistics value of 2.056 at 5% level of significance, we accept the alternative hypothesis and conclude that Gross fixed capital formation significantly affects FDI inflow in Nigeria.

Hypothesis four

H_0 : The level of economic activities does not exert any significant impact on FDI inflow in Nigeria.

H_1 : The level of economic activities exerts a significant impact on FDI inflow in Nigeria.

Decision Rule

Accept H_0 : if calculated t-statistics value < table t-statistics value.'

Reject H_0 : if calculated t-statistics value > table t-statistics value.

From the regression result,

Calculated t-statistics value = 6.6361

Table t-statistics value = 2.056

Since the calculated t-statistics value of 6.6361 is greater than the table t-statistics value of 2.056 at 5% level of significance, we reject the null hypothesis and accept the alternative hypothesis. It therefore implies that the level of economic activities exerts a significant impact on FDI inflow in Nigeria.

4.4 Discussion of Findings: The determinants of FDI inflow to Nigeria have been examined. From the study's findings FDI inflow to Nigeria is determined by the market capitalization, trade openness, gross fixed capital formation and level of economic activities. The study specifically revealed that market capitalization has an inverse and significant effect on FDI inflow to Nigeria. This means that the higher the capitalization of the Nigerian stock exchange the lower the FDI inflow to Nigeria. This finding is in agreement with the capital market theory of FDI which believes that investor having information gaps about the host country's securities prefers FDI which allows control of host country assets over FPI. This implies that investors alternate between FDI and FPI in their investment decision and will invest in less risky FDI. This finding has been supported by Ezeoha, Ogamba & Onyike (2009) who conducted a study on the nature of relationship between stock market development and levels of domestic or foreign private investment flows in Nigeria. They found a positive link between capital market and domestic private investment and a negative relationship between stock market development and foreign private investment. It was discovered that trade openness had a positive but insignificant impact on the inflow of FDI to Nigeria. Unfortunately, this finding negates the findings of Danish & Adiga (2012) who studied FDI, Trade openness and real output, using error correction model, the authors revealed that trade openness relate significantly with FDI in Nigeria. This result could be attributed to the porous border of Nigeria that allows for Contra- bound products into Nigeria. This makes foreign investors to feel in secured investing in Nigeria. The study further showed that gross fixed capital formation exerts an indirect but significant influence on FDI inflow in Nigeria. The saving and investment habit of Nigerians is low hence low capital formation which in turn is insignificant in attracting FDI. Lautier & Moreaub(2012) studied domestic investment and FDI in developing countries. Using a sample of 68 countries and GFCF as a proxy for

domestic investment, the authors applied the OLS method to analyse the data. The study revealed a large positive relationship between domestic investment (GFCF) and FDI for all countries

The study finally revealed that there exist significant positive impacts of the level of economic activities on FDI attraction. The study this means that as economic activities increase, it paves way for foreign investors to come in and take advantage of the vibrant economic potentials. This finding is in agreement with this finding has been supported by Obanda (1982) and Anyanwu (1998) who both investigated the economic determinants of FDI inflow in Nigeria. Applying the OLS technique, their findings revealed that market size measured by GDP is a strong determinant of FDI inflow in Nigeria.

V. Summary Of Findings, Conclusion And Recommendation

Summary of findings.

This study was carried out to examine the determinants of FDI inflow in Nigeria. The study review relevant empirical and theoretical literatures on FDI. Using the ordinary Least Square multiple regression technique to investigate the extent to which market capitalization, trade openness, gross fixed capital formation and level of economic activities impact on FDI inflow and ADF and PP tests to test the properties of the time series, the following findings were made:

- (i) Market capitalization has a large negative effect on the inflow of FDI in Nigeria.
- (ii) There is a marginal positive impact of trade openness on the inflow of FDI in Nigeria.
- (iii) Gross fixed capital formation has a significant negative effect on the attraction of FDI into Nigeria.
- (iv) There is a large positive effect of the level of economic activities on the inflow of FDI in Nigeria.

VI. Conclusion

This study examined the determinants of FDI in Nigeria. With specific attention on market capitalization, trade openness, gross fixed capital formation and level of economic activities and applying the OLS multiple regression technique, the study revealed that these factors were robust in attracting FDI into Nigeria.

VII. Recommendations

Based on the analyses and the findings that emanated from this study and their respective policy implication, the following recommendations were made.

- (i) Policies geared at enhancing economic activities should be formulated. Policies related to increase loans, enhanced infrastructure, steady power supply; good road networks will go a long way to achieving this.
- (ii) The need to discourage border mismanagement and porosity has been emphasized since an over liberal trade openness is unhealthy for foreign direct investment attraction in Nigeria. This could be achieved by training and developing the Nigerian Customs and Immigration authorities.
- (iii) Deliberate policies to discourage social unrest, corruption, macroeconomic instability should be emphasized through an investment friendly environment to enhance investors' confidence and courage.
- (iv) Proper information about the securities traded on the Nigerian Stock Exchange should be made available to foreign investors to act as a catalyst in ensuring that both FDI and FPI are attracted into Nigeria.
- (v) A reorientation of the citizenry on the need to reduce consumption and increase savings to enhance the level of capital formation in Nigeria.
- (vi) The government in conjunction with private entrepreneurs should create jobs to boost savings and consequently capital formation to a level significant enough to attract FDI into Nigeria.

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