Impact of Foreign Direct Investment on Development of Capital Market

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Abstract

This research work examines the relationship between foreign direct investment and capital market development with specific reference to Nigeria; given the role of FDI in promoting economic growth in emerging economies of the world. The paper adopted the ADF unit root test and Johansen test co-integration test in assessing the secondary data obtained from the Central Bank of Nigeria statistical bulletin covering 1970 to 2019. The non existence of co-integration between FDI and market capitalization led to the OLS regression analysis which proved a significant relationship between FDI and market capitalization. Against this backdrop, it is an empirical precedent that FDI has a significant impact on capital market development. It is therefore suggested that deliberate and purposeful actions through government economic policies be taken to drive inflow of foreign direct investment into Nigeria. Nevertheless, over reliance on foreign direct investment as a way of stimulating economic growth, should be played down as it is not a viable option in the long run. This is revealed by the low beta weight and lack of co-integration of FDI. The study concludes that while inflow of FDI should be encouraged, through government policies, emphasis should be on the local investment in the long run.

Keywords: Market capitalization, Investment, Foreign Direct Investment, Foreign Portfolio Investment

1. INTRODUCTION

Investment is a function of capital availability. This could come from savings, borrowing and foreign contribution. The amount of savings and borrowing in developing nations is at the very ebb given the peasant nature of many citizens due to low per capita income and high interest rate in Nigeria. This is a huge problem that nations in Africa have battled with over the years. There is therefore a clarion call to attract an alternative means of capital either in the form of private or public agencies from foreigners to boast economic activities in order to stimulate economic growth. The capital market plays a great role as it serves as a platform for pulling resources for investment purposes. Hence the development of the capital market is an apparatus for mobilizing foreign direct investment as auxiliary to indigenous effort. The Nigeria capital market came on board operation 1st march 1959 as Lagos Stock Exchange and was incorporated 15th December 1960. It began operation 5th June 1961. It however evolved into the Nigerian Stock Exchange by 1977 to drive capital market activities. Since its inception it has been a platform for the attraction and operation foreign market development for investment purposes for economic growth in Nigeria. A major problem confronting business growth and expansion in sub-Saharan Africa is finance. Hence through the capital market with correct enabling environment, there is a growing foreign capital inflow to drive economic growth. The question then is to what extent does foreign direct investment act as a vehicle for driving economic development and enhance the capital market development? There has been much discussion on the need to attract foreign direct investment into Nigeria to boast economic growth. Time without number, Presidents have had travelled abroad in search of foreign direct investment. Hence it became necessary that a study of the impact of foreign direct investment on the development of capital market be carried out if for nothing else; to create awareness on policy makers, contribute to academic discussion on the subject matter.

2. LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of Foreign Direct Investment

The International Monetary Fund (IMF) defined foreign direct investment as the investment that involves a long term relationship reflecting a lasting interest of a resident entity in one economy (direct investor) in an entity resident in an economy other than that of the investor. According to the World Bank, FDI refers to the net inflow of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise

operating other than that of the investor and can be further developed as the sum equity capital, reinvestment of earnings, other long term capital, and short term capital as shown in the balance of payments in that economy. Thus, it is composite function of capital stock and technology, and augments existing stock of knowledge in the host economy through labour training, skill acquisition and diffusion and the introduction new managerial practices and organizational arrangements (De-Mello, 1999).

Capital market is a miniature of the financial market concerned with mobilizing and distributing long term funds by acting as a synergy between the surplus sector of the economy and the deficit sector for investment for purposes. It can be framed as a conglomerate of institutions that organize long term financial instruments such as debentures, shares, stocks, bonds and government securities (Author's perception). Osita, (1990) emphasized the element of control in his conceptualization of foreign private investment as investment in a foreign country where the investing party (corporations, firms and so on) retain control over the investment. Thus "the heart of any foreign private investment is control". The International Monetary Fund (IMF) sees Foreign Private Investment as "investment that is made to acquire a lasting business in an enterprise's operation on economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprises". Succinctly, the prime objective of capital market entails but not limited to marketing liquidity and safety of financial assets in order to promote savings and investment; encouraging more refund allocation of resources by stabilizing the demand and supply of loanable funds; enabling the transfer of funds from one sector or country to another for economic or commercial growth and enhancing successful implementation of monetary and indigenization policy (Adeusi, 2000). Sustainable economic growth and development can be realized through lot local and foreign investment efforts which made it possible with the presence of a well organized and functioning capital market (Ekundayo, 2002).

2.1.2 Concept of Capital Market

A capital market is a financial market in which long-term debt or equity-backed securities are bought and sold. Capital markets channel the wealth of savers to those who can put it to long-term productive use, such as companies or governments making long-term investments. The savers represent the surplus sector of the economy otherwise known as household and those who use the wealth represent the deficit sector of the economy. The capital market is therefore a link between the surplus and the deficit sector of the economy. Thus, it acts as a pool of wealth for the financial need of business entities. The capital market could be primary or secondary. The primary market is the market where the securities of new companies are bought and sold. The secondary market on the other hand, deals with the securities of existing companies. Market capitalization on the other hand, commonly called market cap, is the market value of a publicly traded company's outstanding shares. Market capitalization is equal to the share price multiplied by the number of shares outstanding (Wikipedia, 2020).

2.1.3 Concept of Investment

In an economic sense, an investment is the purchase of goods that are not consumed today but are used in the future to create wealth. In finance, an investment is a monetary asset purchased with the idea that the asset will provide income in the future or will later be sold at a higher price for a profit (Investopodia, 2020). Multinational Enterprise is a transnational corporation with facilities and other assets in at least one country, than its home country. It generally, has offices and/or factories in different countries and a centralized head office where they coordinate global management (Investopodia). They are engines for transmitting foreign direct investment.

2.1.4 Foreign Portfolio Investment

UNCTAD (1999) conceived foreign portfolio investment as the as the transfer of financial assets by way of investment by resident individuals, enterprises and institutions in one country in securities of another country, either directly in the assets of the companies or indirectly through financial markets. The capital market is the engine room that drives this process.

2.2 Empirical Literature

Ezeoha (2009) conducted a study on the nexus between stock market development and level of domestic or foreign private investment flows in Nigeria. This research revealed a positive correlation between capital market development and foreign private investment while a negative correlation exists between capital market and foreign private investment in Nigeria. Afeesze and Kazeem (2010) opined that there exist a unidirectional union between market capitalization and economic growth, and the deficiency of unconventional union between economic growth and total value traded two way cuasality between economic growth and and turn over ratio. Conclusively, the result of the granger test demonstrated that capital induces economic development. Olawoye (2011) undertook an investigation on the impact of capital market on economic growth in Nigeria. Gross Domestic Product (GDP) was used as a proxy for economic growth and market capitalization, new issues, value of transaction traded and total listing were hosted as capital market variables. The multiple regression technique was employed for the analysis and the result showed a positive network between capital market and economic development. Okwu and Obiakor (2011) engaged the Ordinary Square to examine the impact of market development on the Nigerian Economy Growth from 1981 to 2008. They concluded that market capitalization gross capital formations of foreign private investment are major determinants of the Nigerian economic growth while the volume of share traded related positively but insignificantly. Baghebo and Edoumiekumo (2012) carried out an exploration and adopted the group unit root and Johansen co-integration test to investigate the connection between Foreign Private Capital Accumulation (FPCA) and Economic Development in Nigeria from 1070 to 2010. The study found out that current and lagged FPI have a positive correlation which suggests a positive impact on economic development. However, while the latter is statistically compelling and symbolic, the formal is recessive in magnitude. Hence building policies that drive such investment would be a worthy course with a premium on the economy. Uremadu (2010) demonstrated the impact of Foreign Private Investment on Capital Formation in Nigeria with the aid of ordinary Least Square technique. His exercise portrayed a negative correlation of foreign exchange rate, gross national savings, inflation rate, debt service ratio, lending rate, exchange rate, and all dissuaded gross capital formation in Nigeria. Nevertheless, aggregate foreign private investment, index of energy consumption and banking system and credit to domestic economy pointed a positive association.

Chigbu, Ubah and Chegbu (2015) surveyed the impact of capital inflows on economic growth of developing economies with focus on Nigeria, Ghana and India from 1986 to 2012. The Augmented Dickey Fuller unit root test was adopted to examine the stationarity of the data and the Johansen co-integration was employed to evaluate the long run equilibrium relationship among the variables observed. The causal connection was tested using the Granger Causality while the Ordinary Least Square technique was used to appraise the model. The researchers concluded that capital inflows have a pronounced magnitude on the economic growth of these three countries alike. They assert that in Nigeria, Ghana and India, foreign direct investment as well as foreign borrowings have convincing and significant impact on the economic growth of developing nations taking the three countries as reference points. Okpoto (2015) scrutinized the impact of foreign direct investment on the Nigeria's economy growth from 1980 – 2103. He relied on the Augmented Dickey Fuller (ADF) and ECM, to measure the long run union between GDP and other variable in the model. In a bid to demonstrate this, the network between real GDP and foreign private investment, inflation, exchange rate and interest rate were given priority. The findings showed that activities of FPI have impacted favourably in enhancing economic activities in Nigeria within the period reviewed. Also in McRollins and Orji (2014), the impact of foreign portfolio investment in Nigerian capital market was place in perspective using Error of Correction mechanism and Mackinnon model. The conclusion was that foreign portfolio investment and FDI confirmed that FDI contributes significantly to Nigeria capital market development.

Irfan (2014) evaluated the impact of Foreign Direct Investment on the Volatility of Pakistan Stock market using regression analysis. Market Capitalization was used as the dependent variable while the explanatory variables were FDI, GDP, and inflation. The outcome showed that foreign direct investment has positive impact on the development of stock market in Pakistan. Ali, Nasir, Zeshan, Mohammad, and Tanvir (2012) in their research on the role of FDI on Stock Market Development, they adopted the Ordinary Least Square (OLS) method of regression to analyze the secondary data of annual series for the period of 1988-2009. The results of the study demonstrated a positive impact of foreign direct investment along with other explanatory variables domestic

savings, FDI, exchange rate and inflation rate in developing Stock market in Pakistan. Ugochukwu, Ukore and Onoh (2013), surveying the impact of foreign direct investment on the Nigerian economy that from 1081 to 2009 made use of the ordinary Square procedure to infer the union between the two variables. It was discovered that a positive but symbolic and compelling association between foreign direct investment and economic growth in Nigeria exist for the period under review and the same applied to interest rate while domestic investment is positive and significant. Thus there is a long run network or connection between gross domestic product (GDP) and number of transactions while market capitalization causes economic growth. Obviously from the forgoing, capital market plays a very pronounced role in the economic development of developing and less developed countries of the world. Nonetheless, Kolapo and Adaramola (2012) argued that continuous inflow of foreign direct investment to developing countries of the world has not been able to address the ailing problems plaguing these economies. Osinubi (2010) relying on secondary data from 1970 to 2005 to mirror the effect of foreign private investment on Nigeria economy growth, postulated from empirical analysis that foreign direct investment, domestic investment growth and net export growth have a forceful impact on Nigeria economic growth.

Haruna Danja (2012) conducted a research on Foreign Direct Investment and the Nigerian Economy relying on Ordinary least Square approach of data analysis, came to the believe that there exist a positive correlation between FDI and those variables but FDI has not according to him contributed much to the growth and development of the Nigerian economy. Eniekezimene (2013) probed the impact of foreign direct portfolio investment on capital market growth evidence from Nigeria. The Ordinary Least Square system was adopted in analyzing the secondary data collected. The result of the analysis showed clearly, that foreign portfolio investment has a positive impact on capital market growth. Edame and Okoro (2013), presented a careful study of the "Impact of Capital market on Economic Growth in Nigeria". They finally arrived at the conclusion using the enquiry approach of the Ordinary Least Square regression technique, that capital market has a positive and symbolic impact on economic growth in Nigeria. Contrarily, Idowu and Babatunde (2012) interrogated the effect of financial reform on capital market development in Nigeria between 1986 and 2010. Again, resting on the Ordinary Least Square regression analysis method opined that the variables that stood for the development of the banking sector associated negatively with market capitalization which suggested that the activities of these institutions prevented the development of the capital market. The debate in the academic discussion on the economic prospects Foreign Direct Investment has on capital market development in Nigeria is the narrative of this research work.

2.3 Theoretical Framework

2.3.1 Industrial organization Theory

Hymer's (1976) version of The Industrial Organization identifies two major factors causing foreign direct investment. The first he attributed to the desire of oligopolistic firm to overcome competition or to eliminate conflicts, which arises, due to the simultaneous operations of a few firms of different countries in the same industries having barriers to entry. As the conflict erodes the profit of the individual firms, the resulting effect is for the firms to operate in a unified ownership. This process drives the occurrence of Foreign Direct investment when an existing enterprise in country takeovers or contrive with an independent enterprise of another country, both operating in similar industry. Secondly, the possession of monopolistic advantages by the prospective foreign investor that overcomes the disadvantages of doing business abroad. Hymer (1976) articulated that a firm attempting to operate across national boundaries faces disadvantages in terms of additional costs arising from the lack of knowledge about alien economy, language, law and politics; discrimination by the foreign governments, consumers and suppliers; and exchange rate risk (Kindleberger 1969). Much more lately, Zaheer (1995) identified these additional costs as the liability of foreignness, being faced by a prospective foreign investor, as a fundamental assumption driving theory of FDI. These costs range from direct cost connected to the geographical distance-higher coordination, transportation and communication costs; lack of embeddedness and unfamiliarity with the business networks of the prospective host country; differential treatment of domestic firms in comparison to the foreign firms in prospective host country; restrictions imposed by the home country to share

the resources (high technology or strategic resources) with its subsidiaries to be located in certain countries(Zaheer 1995).

The monopolistic advantages that could compensate for the liability of foreignness includes: the capability to obtain factors of production at lower prices than rival firms; possession of superior production technology; command over better distribution channels; superior organizational and marketing skills and economies of scale in production and distribution; product differentiation [Hymer (1976) Kindleberger (1969) Caves (1971, 1974)]. Thus the possession of monopolistic advantages enables a firm to exploit them through international business including exports these advantages by way of FDI.

2.3.2 Transaction Cost or Internalization Theory of FDI

Internalization is a process by which an arm's length transaction based contractual relationship in external market is replaced by internal transaction between a parent firm and its affiliates as well as among affiliates of the parent firm through managerial coordination and administrative fiat (Buckley and Casson (1976). Backed by the concept of internalization of market for goods and intangible assets including technology across national boundaries by a multi-locational firm, Buckley and Casson (1976) attempted for the first time a systematic attempt to develop a transaction cost or internalization TCI theory of FDI. It asserts that FDI occurs in the process of internalization of imperfect external market across national boundaries. Rugman (1981) accepted two kinds of market imperfection, which promotes a firm to establish an internal market across international boundaries. The first is the artificial market imperfection that created mainly by the governments' restrictions on free trade of goods across national boundaries. A common example is custom duties imposed by a country seeking to protect its domestic market industries from imports. To have access to such domestic market therefore, a foreign firm attempts to entrench its Foreign Cash Flows.

The second type of imperfection is natural market imperfection that exists on account of public goods characteristic and intangible nature of the Foreign Subsidiary Agreement. Since it is difficulty determine the market price of firms' specific intangible assets such as proprietary technology, organizational, managerial and marketing expertise, a firm under takes FDI based in different countries. Thus TCI theory favors the Multinational Enterprises on grounds that MNEs are efficient instrument of overcoming imperfections in market, whether the imperfection are created naturally or artificially. The TCI theory also amplified the gain accruing to the host countries through the transfer of technology by the MNEs. The proponents of the TCI theory argued that the host countries basically benefit from the transfer of technology by MNEs as that would not otherwise take place owing to imperfection in the market for technology. They also stressed the fact that since market imperfections are more persuasive in the developing countries than in the developed countries the developing countries stand to gain more through the MNEs' activities.

2.3.3 Eclectic Theory of International production

Merging the idea of industrial Organization (IO), Internalization and Location Advantage theories, Dunning (1977, 1980) postulate an eclectic theory or model of FDI. In his opinion many new evolving facts including those on theoretical front, increasing globalization of economies, integration of economic and financial activities, maturation of knowledge-based economies and liberalization of cross-border trade and FDI Dunning (2000), symbolically necessitate the Eclectic theory. Based on this theory, Dunning (2000) argued that the extent, geography and industrial number of FDI undertaken by MNEs depends on the layout of the three sets of advantages; the net competitive advantages, which firms of one nationality possess in relationship to firms of other nationalities for serving that particular market, internalization advantage and locational advantage. Relying on the evolution of FDI and related literature in the field of finance since the 1060s, Dunning (2000) categorized the net competitive advantage into three strata. The first is associated with the possession and exploitation of monopolistic advantages which are built up from barriers to entry to final product markets for firms not having them. The second one grew out of the ownership of bundle of scarce, distinctive and enduring resources and capabilities as recognized by the resource Based Viewed theory (RBV). The third emanates from the Organization theory of MNEs and includes "the competencies of the firm to identify, evaluate and harness resources and capabilities from throughout the world and coordinate these with the existing resources and

capabilities under their jurisdiction in a way which best advances the long term interest of firms" (Dunning 2000, p.169). The long term interest of the firms relate to minimizing transaction costs and maximizing the benefits of innovation, learning and accumulated knowledge (Dunning 2000). FDI literature suggest that the quantity of FDI flows is influenced by the outward oriented macro-economic policy frame work and friendly business environment created by the host country; a liberal FDI policy including national treatment to FDI and the absence of trade restriction imports (TRIMs); the consistency, fairness and transparency of legal system; protection of private property rights including intellectual property rights; overall state of the development of the economy in terms of physical and social infrastructure, etc of the host country (Kobrin 2005). Furthermore, Narula and Dunning (2006) advocated that FDI assisted development strategy presents the most efficient option to the developing countries in the present context. This is based on four basic reasons which are: First, given the shortage of fund and the less ability to evaluate and bargain, it is not a viable option for many developing countries to obtain Foreign Subsidiary Affiliates from the market. Secondly, following the import substitution strategy or developing new industries under government protection are impost impossible in the post World Trade Organization era. Thirdly, the Multinational Enterprises are increasingly maintaining their competitive advantage by retaining control over their monopolistic advantages in more liberal and competitive market place of today due to the influence of globalization. Therefore, the like to operate more through majority owned foreign affiliates and unlikely to sell their valuable technologies in the external market. In view of the above, it is suggested that the developing countries should not only direct their efforts towards attraction of more Foreign Direct Investment but also develop their capabilities to attract the right kind of Foreign Direct Investment (Lall and Narula 2004).

3.   METHODOLOGY

The research effort uses the Central Bank of Nigeria publication, Economic and Financial Bulletin and Nigeria Investment Promotion Commission as sources of information in order to track the impact of Foreign Direct Investment of Capital Market Development in Nigeria. The statistics used was in the form of secondary data and in specifics, the following data was used: foreign direct investment and foreign portfolio investment and market share index. The model of data analysis employed is the ordinary least square regression technique to establish the union between foreign direct investment and capital market development. The dependent variable which is the capital market development is proxied by all market share index, while the explanatory or independent variable includes foreign direct investment and foreign portfolio investment. The period covered is year 1980-2019. The data was analyzed and presented using various statistical tools such table and percentage.

3.1   Model Specification

A regression model in line with the focus of this research paper is derived from the theory of foreign investment with slight modification on the work of Adaramola and Obisesan (2015). The model is specified as follows:

$MCAP = f(FDI, FPI)$ --- (1)

Presenting equation 1 in its explicit form we obtain:

$MCAP = \alpha_0 + \alpha_1 FDI + \alpha_2 FPI + \lambda$ -- (2)

Where:

MCAP = Market Capitalization of Nigeria Stock market

FDI   = Foreign Direct Investment

FPI   = Foreign Portfolio Investment

λ = Stochastic error term

$a_0 - a_1$ = Coefficient of independent variables.

The model can then be translated into time series form from equation (2) as:

$MCAPt = \alpha_0 + \alpha_1 FDIt + \alpha_2 FPI + \lambda$ -- (3)

Where: t = time series

Since the research is empirical, the data analyzed are quantitative in nature. Hence the hypothesis is tested using the Ordinary Regression Least Square (OLS). However, the reliability of predictors will be measured using the

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standard error test. Outside the Ordinary Least Square (OLS), this research work also borrowed from the tool of Augmented Dickey –Fuller Tests so as to guide against the spurious regression.

3.2 Augmented Dickey Fuller Test.

Augmented Dickey Fuller (ADF) unit root test shall be consulted to examine the stationarity of variables. To measure the magnitude of the time series characteristics and pattern of integration of the variables, ADF unit root test as propounded by Dickey and Fuller (1979) is referenced. The model is hereby presented thus:

$$\Delta \Lambda t = \beta_0 + \Lambda R_{t-1} + \alpha_i \Delta \Lambda_{t-1} + \varepsilon_{t1} \ (\textit{for intercept}) \ \text{--- (4)}$$
$$\Delta \Lambda_t = \beta_0 + \Lambda R_{t-1} + \alpha_i \Delta \Lambda_{t-1} + \varepsilon_{t2} \ (\textit{for trend}) \ \text{--- (5)}$$

Where:

Λ_t = variables tested for unit root, Δ = first difference operator, t = time trend

ε_t = stationary distance error term.

3.3 Johansen Co-integration Test

This tool shall be employed to the extent that it will be used to test the long run relationship of the variables under consideration for informed decision. In order to make an informed decision, it is worthy to determine whether the variables in equation (3) co-integrate. The trace test statistic proposed by johansen is: LR_{trace} (r) = -T In (1-Λ) the trace statistics and for decision to be taken, the computed values are place side by side with the critical values to determine the precise magnitude of integrating equations. Should the test statistics is greater than the critical values from Johasen's table, reject the null hypothesis that there is r co-integrating vectors in favour of the alternative hypothesis that there are r + 1 co-integrating vectors (for trace).

3.4 Error Correction Mechanism

The study also applies the Error Correction Model (ECM) for the determination of short run dynamics and direction of errors between dependent and explanatory variables. That is to investigate the short run dynamics in the relationship between market capitalization, foreign direct investment and foreign portfolio investment. The relevance of Error Correction Model lies on its ability to correct spurious regression results that may occur on time series data. Therefore, from equation (4) the Error Correction Model (ECM) is presented as follows:

$$\Delta MCAP = \alpha_0 - \alpha_1 FDI_{t-1} + \alpha0 + \alpha_1 FPI_{t-1} + \alpha_0 + ECM_{t-1} + \alpha_0 + \Sigma_t \ \text{----------------------- (6)}$$

Where:

ECM_{t-1} = Error Correction Term

t_{-1} = represents the variables were lagged by one period

Σt = white noise residual

α_1 and α_2 are expected to be greater than zero (α_1 and $\alpha_2 > 0$). On a priori, it is expected that the relationship between MCAP, FDI as well as FPI are positive. The signs of estimated coefficients are thus expected to be greater in value than zero respectively since rise in foreign direct investment will lead to rise in market capitalization.

4. RESULTS AND DISCUSSION

Regression Result

Table 1: Ordinary Least Square Regression Result

MCAP	CONSTANT	FDI	FPI
B	-9.881205	1.317301	0.078169
Standard Error	0.795937	0.082581	0.047981
t-Statistics	-12.41456	15.95167	1.629155
prob.	0.0000	0.0000	0.1197
f-statistics = 275.7486 (0.0000), DW = 2.44, Adj. R² = 0.9632			

Source: Author's Computation 2020 using Eview 7 Statistical Package

The result in the above table is substituted into regression equation as follows:

MCAP = -9.881205 + 1.317301FDI + 22.90676FPI

This equation demonstrates clearly, that FDI and FPI are positively correlated with MCAP. It is therefore safe to infer that MCAP increases or varies directly with FDI and FPI. Moreover, keeping all else except for FDI and FPI constant, a percentage change in FDI and FPI is accompanied with a 1.32% and 0.08% change in MCAP respectively. Nevertheless, C is inversely related to MCAP. Laying aside both FDI and FPI a change in exogenous variables brings about a 9.88% reduction in MCAP. The probability magnitude of the C and FDI are less than 5% while FPI is greater than 5%. Conclusively from this result, FPI is not numerically of convincing proportion for determining MCAP. The examination of autocorrelation is inclusive as pointed out by the Durbin Watson coefficient of 2.44. Relying on the probability of f-statistics value, it is less than 5%. Succinctly, the model is of good fit. Adjusted R^2 of 96.32% announced that significant proportion of changes in MCAP can be explained by FDI and FPI.

Tests of Stationarity
Table 2: Result of Unit root tests @ 5% level

Variables	*ADF Test Statistics*	*Mackinnon Critical Value 5%*	*Remark*
MCAP	1.004311	2.976263	Non-stationary
FDI	2.222009	2.976263	Non-stationary
FPI	1.509667	3.052169	Non-stationary

Source: Author' Computation 2020 using Eview 7 Statistical Package

Table 3: Results of the Unit root Test @ 1st difference

Variables	ADF Test Statistics	Mackinnon Critical Value @5%	Order of Stationarity	Remark
MCAP	4.214843	2.981038	1 (1)	Stationary
FDI	8.802530	2.981038	1 (1)	Stationary
FPI	5.125424	3.052169	1 (1)	Stationary

Source: Author's Computation 2020 using Eview 7 statistics package

As long as the entire variables are non stationary at 5% level except for ECM as revealed in table 2, it is logical to advance to unit root test at 1st difference where all the variables become stationary. The ADF test results are greater than the Mackinnon Critical Values at 5% as can be observed from table 3.

Johansen Co-integration Test

Hypothesized No. of CE(s)	*Eigen Value*	*Trace Statistics*	*5% Critical Value*	*Prob. ** *
None*	0.631131	37.98626	29.79707	0.0046
At most 1	0.534413	18.04000	15.49471	0.0202
At most 2	0.128503	2.750857	3.841466	0.0972
MCAP = -1.423216 FDI – 0.042129 FPI				
(0.04611) (0.03256)				

Source: Author's Computation 2020 using Eview 7 statistical Package

In a bid to assert whether the variables co-integrate in the long run, Johansen co-integration test is sourced for validation. The result of the test is in table 4 as shown above. The test results revealed that there is a long run co-integration among MCAP, FDI and FPI. This is due to the trace statistic is greater than 5% critical value at none* hypothesized. The result outcome shows two co-integrating equation out of which one is selected premised on highest log-likelihood of 43.39385 in absolute term. Co-integration equation in table 4 demonstrates that there exist negative connections or correlations between MCAP and FDI on one hand and between MCAP and FPI on the other hand. It therefore reasonable to say that a percentage variation in FDI and FPI shall by all standards

will result in a 1.423216% and 0.042% decrease in MCAP respectively. Of course, the standard errors are presented in parentheses. It demonstrates that only FDI accounted for a significant explanation for changes in MCAP owing to its average coefficient is greater than standard error.

Error Correction Model

Table 6: Over –parameterized ECM results

Variable	*Coefficient*	*Standard Error*	*t-statistic*	*Prob.*
D(MCAP)(1)2)	-0.082670	0.185588	-0.445449	0.6639
C	-0.031793	0.079590	-0.399459	0.6966
D(FDI), 2)	0.787143	0.242135	3.250848	0.0069
D(FDI(1),2)	0.145674	0.164185	0.887256	0.3924
D(FPI,2)	0.040763	0.030030	1.357401	0.1996
D(FPI(-1),2	0.007996	0.028579	0.279776	0.7844
ECM(-1)	-1.599453	0.359547	-4.448521	0.0008
R^2 = 0.662963, Adj. R^2 = 0.494444, f-statistic = 3.934066(0.020825, DW = 1.56				

Source: Author's Computation using 2020 Eview statistical package

Table 7: Parsimonious ECM Results

Variable	Coefficient	Standard Error	t-statistic	Prob.
D(MCAP(-1),2)	-.0072005	0.170957	-0.421189	0.6796
C	-0.037633	0.071564	-0.525865	0.6067
D(FDI,2)	0.650977	0.168744	3.857780	0.0015
D(FPI,2)	0.038661	0.025198	1.534277	0.1458
ECM(-1)	-1.542099	0.325753	-4.733949	0.0003
R^2 = 0.640985, Adj. R2 = 0.545248, f-statistic 6.695248(0.002675), DW = 1.462342				

Source: Author's Computation 2020 using Eview 7 statistical package

The error correction table presents the over parameterized and parsimonious error correction models. The over parameterized ECM is designed to estimate the lag tie long enough as to ensure that dynamics of the model has not been restricted by too short lag length. In the over parameterized model, variables whose coefficients are significant or move near to being significant are extracted for the estimation of parsimonious ECM. On the other hand, the parsimonious ECM revealed that there is a clear long run stable relationship among the variables. This is demonstrated by the coefficient of one period lag of ECM which is numerically convincing and rightly signed (ECM – 1.542099) with a probability value of 0.0003. This result shows that about 154% of the short run inconsistencies are being corrected and incorporated into the long-run symmetric network annually. The unique impacts of each of the FDI and FPI have positive impact on MCAP, holding all other exogenous variable constant. An increase in the two variables will produce increase of 65% and 3.8% increase respectively in MCAP. The outcome further demonstrates that FDI has a strong influence in determining MCAP. F-statistic test shows that is of a good fit while the Durbin Watson statistic demonstrates that the model is free from autocorrelation and that the degree of determination shows that about 55% of changes in MCAP are attributable to FDI and FPI respectively after adjustment.

4.1   Discussion of Findings

The prime focus research work is to assess the impact of foreign direct investment on the development of Nigerian Capital Market using time series between 1990 and 2019. The study employed the Johansen Co-integration model to measure the long run relationship between foreign direct investment and portfolio investment on stock market development proxied by the market capitalization. The outcome of the study pointed out that there exist a convincing long- run connections or network among the variables. The error correction

model results suggest that the variables short run union which can be truly be felt in the long run. The short run inconsistencies have been corrected because ECM coefficient is significant with correct negative sign.

5.   CONCLUSION AND RECOMMENDATION

Following the empirical results of this survey, the study submits that foreign direct investment has a positive but magnifying impact on the capital market. However, foreign portfolio has useful or practical but infinitesimal impact. This is anchored on the fact that foreigners are motivated by huge investment in the developing countries because foreign direct investment calls for physical presence or a strong proportion of ownership so as to exercise control over such investment. This is not unconnected to the fact that they want security for their investment. Conversely, foreign portfolio investment does not grant the investors the opportunity to participate in the management of the business. Therefore, the negligible magnitude of foreign portfolio investment is predicated on lack of trust in locally controlled business. Inconsonance with the findings of the research, the flowing recommendations are proposed.

   i.   The recommends that given the positive impact of foreign direct investment on the Nigerian Capital Market Development, concerted effort should be made to promote inflows of foreign direct investment into the country through policy formulation that will Nigeria the destination of foreign direct investment.
   ii.   A second recommendation is that regulatory frame work of the Nigeria Stock Market should be enhanced to promote transparency and equitable dealings.
   iii. Since foreign direct investment are a major source capital inflow investment in the developing countries, the study further suggest that the country should develop its capabilities so as to attract the right foreign direct investment in the right quantity.
   iv.   It is the opinion of the researcher that developing countries should promote free trade and remove all trade barriers that inhibits inflows of foreign direct investment into the country so as to maximize the benefits of foreign direct investment.

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