

# CROSS-BORDER INVESTMENTS AND INDUSTRIAL PERFORMANCE IN NIGERIA

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## **Abstract**

This study examines the impact of cross-border investments, which comprised of foreign direct investment (FDI) and foreign portfolio investment (FPI) on industrial performance in Nigeria using time series data for the period 1988-2020 sourced from the World Bank. The study adopted Augmented Dickey-Fuller (ADF) test, co-integration techniques, Granger causality test, and Error Correction Model (ECM) as methods of data analysis. The findings of the study revealed that FDI had a weak negative effect on industrial development in Nigeria while FPI had a positive significant effect on industrial performance. The study also revealed that the exchange rate had a weak negative effect on industrial performance. The study, therefore, recommends that the government of Nigeria should employ tax incentives to discourage the repatriation of profits (earnings) by foreign investors and strengthen the quality of education to boost human capital in order to realize the positive spillover effects of technology and capital transfer by foreign investors. It also recommends that the demand for foreign currency should be reduced by placing an embargo on imported raw material and used items from abroad among others as well as developing the agriculture and manufacturing sector to produce imported items and more export-oriented to generate greater foreign earnings to sustain the stability of the naira.

**Keywords:** Cross Border Investments, Exchange Rate, Foreign Direct Investment, Foreign Portfolio Investment, Industrial Performance.

**JEL Classification:** C32, C87, F21.

## **1. INTRODUCTION**

The industrial sector is the most critical parameter for gauging the health of any economy. Industrial sector development fosters economic growth and development through lowering poverty and regional disparities, boosting export

income, creating high-quality jobs, and improving technological capabilities and productive capacity (Samantha & Haiyun, 2018). This knowledge has made Nigeria adopt an import substitution industrialization strategy in the 1970s. It has also made the country to have adopted Structural Adjustment Programmes (SAP) in the 1980s and established industrial zones. However, it appears these efforts have not yielded much success (Aiyedogbon & Anyanwu, 2015) given that the industrial sector has not only been competitive and export-oriented but also its growth dropped abruptly from 6.06% in 1984 and 6.8% in 1985 before the adoption of SAP to -2.87% in 1986 and -1.04% in 1987 during and immediately after the adoption of SAP. Moreover, over the last decade, the aggregated value added of the industrial sector has been on the decline from 41.48% in 2008 to 20.38% in 2015 (World Bank, 2016).

Inadequate indigenous capability, raw materials, high technologies, skilled manpower, access to capital, and poor backward linkages among industries have historically been identified as the major challenges affecting the performance of the industrial sector (Onyinye, Anthony-Orji & Okafor, 2015). The performance of the Nigerian industrial sector has also been severely affected in recent times by the high exchange rate misalignment occasioned by the dwelling foreign earnings due to the massive drop in crude oil price. This has increased the cost of sourcing foreign raw materials, technologies, equipment, and skilled manpower which most of the firms in the sector are highly dependent on to operate at full capacity.

Nevertheless, Okoli and Agu (2015) have observed that the attraction of cross border investments, which comprises Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI), can help revive the Nigerian industrial sector with the belief that these forms of investments usually stimulate foreign reserves needed to bring down high exchange rate, supplement domestic savings and capital, stimulate high technologies and enhances local skilled manpower, employment generation, and increases the efficiency of domestic stock markets to create more wealth and allocate capital. FDI is “the purchase of physical assets or a significant amount of the ownership (stock) of a company in another country to gain a measure of management control. Thus at the core of FDI are international flows of capital.” (Wild, Wild, & Han, 2001:222). FPI consists of securities and other financial assets held by investors in another country. It does not provide the investor with direct ownership of a company’s asset and is relatively liquid depending on the volatility of the market. Along with FDI, FPI is one of the common ways to invest in an overseas economy. FDI and FPI are both important sources of funding for most economies.

### **1.1 STATEMENT OF THE PROBLEM**

The capital, technologies and manpower benefits accompanying cross border investments have made Nigeria to engage in investment promotion strategies (abolishment of ceiling for foreign participation in equity capital in various sectors

of the economy; economic reforms which include exchange rate reforms, deregulation/trade liberalization; and establishment of free trade zone). But Iddrisu, Adam and Halidu (2015) have proven that cross border investment is not always beneficial to industrial sectors in less developed countries as they can crowd out inefficient domestic firms and make them uncompetitive through massive investment in marketing and offering products portfolio that are close substitutes with that domestic firm. Moreover, Osaze (2011) argued that cross border investments can cause volatility and distort market efficient. They usually trigger of exchange rate misalignments, credit booms, deplete balance of payments, currency mismatches, which may further result in domestic business shock thereby retarding industrial performance. This is especially when the capital invested (injected) in the recipient country by foreign investors is less than repatriated interest/profit, and such profit repatriated was done within a short period.

Validating how cross border investments crowding in or crowding out industrial performance in Nigeria, most studies in Nigeria context focused only on foreign direct investment (Ekienabor, Aguwamba, & Liman, 2016; Ezeanyejí & Ifebi, 2016; Akpan & Eweke, 2017; Akinwale, Adekunle, & Obagunwa, 2018; Idoko & Taiga, 2018; Kalu-UluI, 2018; Nwosa, 2018; Afolabi, Laseinde, Oluwafemi, Atolagbe, & Oluwafemi, 2019; Eze, Nnaji, & Nkalu, 2019; Takon & Nkamare, 2019) thereby paying little or no attention to FPI apart from the studies of Okonkwo (2016), and Ezeanyejí and Ifeako (2019). Moreover, the extant studies on the influence of cross border investments crowding on industrial performance in Nigeria except the study of Richardson and Tamarauntari (2014) measured industrial performance with the valued of manufacturing firms thereby neglecting other components of the industrial sector. Most of these studies however revealed mixed findings, which provide the impetus of this study to considered how the two proponents' forms of cross border investment, which include FDI and FPI interact in crowding in or crowding out industrial performance in Nigeria using extensive data of value added manufacturing, oil and gas, mining and quarrying, and electricity generations output in the measurement of industrial performance in Nigeria. Based on the foregoing, it is therefore imperative to investigate cross border investments and industrial performance in Nigeria.

The rest of the paper is organized as follows: the next section provides the review of related literature. Section 3 presents the data and methodology. Section 4 highlights the empirical results and findings. Finally, section 5 provides some concluding remarks, and recommendations

## **2. LITERATURE REVIEW**

### **2.1 EMPIRICAL REVIEW**

There is no doubt that different empirical studies have been done on the impact of cross-border investments on industrial performance both in developed and developing countries. However, the majority of the studies focused on FDI and

industrial performance while a few others focused on FPI and industrial performance and yet others focused on the exchange rate and manufacturing sector performance. Furthermore, the various studies have adopted different methodologies ranging from Auto-Regressive Distributed Lag (ARDL) technique, Augmented Dickey-Fuller (ADF) test, co-integration technique, Ordinary least Square, error correction model (ECM), Vector Auto Regression (VAR) technique, Generalized Method of Moments (GMM) and among others to carry out their analyses. Some of these studies showed positive relationships, others showed negative relationships and yet others showed mixed results. These studies are shown in table 2.1.

**Table 2.1** Table of empirical literature

S/N	Author(s) and Year	Place of study	Methodology	Findings
1.	Habibur and Ismail (2003)	Bangladesh	Co-integration and ECM	A negative effect of exchange rate on private sector investment at both the short-and long-run
2	Adejumo (2013)	Nigeria	Autoregressive lag distribution	A negative effect of FDI on Nigerian manufacturing sub-sector.
3	Ayinde (2014)	Nigeria	Ordinary Least Square (OLS)	A significant negative relationship between the exchange rate and the manufacturing sector.
4	Aiyedogbon and Anyanwu (2015)	Nigeria	OLS	Interest rate, FDI, and real GDP had a positive relationship with the industrial production index while there was a negative relationship between consumer price index, broad money supply, and manufacturing credit, and industrial production index.
5	Iddrisu <i>et al</i> (2015)	Ghana	Johansen cointegration test	A significant positive effect of FDI, trade openness, and gross fixed capital formation on industrial sector performance while exchange rate had a negative effect.
6	Adegboye, Ojo and Ogunrinola (2016)	African Region	Pooled OLS	A significant relationship between FDI and industrial performance for host African countries
7	Ekienabor <i>et al</i> (2016)	Nigeria	OLS	A positive relationship between FDI and manufacturing sector.
8.	Ezeanyeji and Ifebi (2016)	Nigeria	OLS	FDI has contributed significantly to industrial performance in Nigeria.
9.	Okonkwo (2016)	Nigeria	OLS and ECM	FPI had a weak positive impact on industrial performance.

10.	Akpan and Eweke (2017)	Nigeria	Vector Autoregressive (VAR) and Johansen Cointegration test	A significant positive impact of FDI on industrial sector performance.
11.	Akinwale <i>et al</i> (2018)	Nigeria	Augmented Dickey-Fuller (ADF), Johansen test, and ECM	FDI and bank credit had a significant effect on agricultural productivity while government expenditure had no significant.
12	Idoko and Taiga (2018)	Nigeria	VAR and Johansen Cointegration test	FDI had a positive effect and a long-run relationship on the manufacturing sector output.
13.	Kalu-UluI (2018)	Nigeria	OLS	A positive relationship between FDI and performance of the manufacturing sector.
14.	Nwosa (2018)	Nigeria	ECM	A significant negative impact of FDI on industrial sector growth.
15	Samantha and Haiyun (2018)	Sri Lanka	Auto-Regressive Distributed Lag (ARDL) and co-integration	FDI had a significant relationship with industrial sector growth.
16.	Sinha, Modak, and Sengupta (2018)	India	Unit root test and GMM	The inflow of FDI significantly enhances production growth
17	Adebanjo <i>et al.</i> (2019)	Nigeria	Unit root test, Johansen co-integration test, Granger causality test, and ECM	Both exchange rate and FDI had a significant negative relationship with manufacturing sector performance.
18	Eze <i>et al</i> (2019)	Nigeria	OLS and Granger causality tests	FDI had a significant effect on manufacturing sector output growth.
19	Ezeanyej and Ifeako (2019)	Nigeria	ADF, Johansen co-integration test and ECM	A positive significant relationship between FPI and economic growth.
20.	Jie and Shamshedin (2019)	Ethiopia	Vector Autoregressive model (VECM), and Johansen co-integration test	FDI had a significant impact on industrialization.
21	Megbowon, Mlambo and Adekunle (2019)	Sub-Saharan Africa (SSA)	Panel Corrected Standard Error (PCSE)	FDI had a positive impact on industrialization

22	Takon and Nkamare (2019)	Nigeria	OLS	FDI, interest rate, exchange rate and inflation rate had significant relationship with manufacturing sector value added output.
23	Zhou, Hong, Wu, and Marinova (2019)	China	Unit root test, Co-integration test, Granger Causality Test, and Regression	There is a positive relationship between Domestic innovation performance (DIP) and outward FDI in developed economies and a negative relationship in transnational and developing markets.

*Source: Authors' compilation (2022)*

## 2.2 THEORETICAL FRAMEWORK

The Harrod-Domar model is a suitable theoretical framework for this study. The model was developed by Roy Harrod (1939) and Evsey Domar (1946). The model posits that the more a nation saves and invests the faster the rate of that nation's development. The model stressed that savings and investment supplements the capacity of the productive sector of any economy, which is a necessary condition for the development and growth of the industrial sector. The model assumed that if the domestic capital and investment of a country are inadequate, such a country should effectively mobilize, inject and infuse foreign resources such as foreign direct investment and foreign portfolios to increase the domestic capital necessary for investment. Moreover, such foreign resources can resuscitate the dwelling foreign currency availability in a country, which has over the years associated with an incessant increase in the cost of acquiring imported raw material, technical know-how and heavy machinery which most manufacturing industries in Nigeria greatly relied on to produce a large number of goods within the local markets for the teeming population.

## 3. DATA AND METHODOLOGY

### 3.1 DATA

This study made use of annual secondary data on aggregate foreign direct investment, portfolio investment, exchange rate, value-added manufacturing, oil and gas, mining and quarrying, and electricity generations output for the period of thirty-two years between 1988 and 2020 sourced from World Bank.

To examine the relationship between cross-border investments and industrial performance in Nigeria, this study proxy industrial performance (been the sum of the value-added in the selected sector like water, gas, electricity, mining, manufacturing, and construction). This is in line with the study of Iddrisu *et al.* (2015). The study measures the value-added as the net output of the industrial sector with the addition of all outputs minus intermediate inputs. This is done without referring to the

depreciation of fabricated assets or diminution and mortification of natural resources.

For cross border investments, this study decomposed it into FDI and FPI in line with the conceptualization of cross border investments as short-term and long-term investment done by the purchasing of securities in an economy other than that of the investor as the case of FPI, and commitment of financial resources by a foreigner to acquired controlling interest (10% or more of voting stock) of an existing company or to engage in production, marketing and establishment of new enterprise investment (wholly-owned) in an economy other than that of the investor as the case of FDI.

### 3.2. METHODOLOGY

The model developed for this study is specified below:

$$\Delta IDPERM_{t-1} = \beta_0 + \beta_1 \sum_{t=1}^n \Delta FDI_{t-1} + \beta_2 \sum_{t=1}^n \Delta FPI_{t-1} + \beta_3 \sum_{t=1}^n \Delta EXRATE_{t-1} + ECM(-1) + \varepsilon_t \quad (1)$$

Where:

IDPERM = Industrial Performance

FDI= Foreign Direct Investment

FPI = Foreign Portfolio Investments

EXRATE = Exchange Rate

$\beta_0$  = Constant (Intercept)

$\beta_1, \beta_2, \beta_3$  = Coefficients

$\varepsilon_t$  = Error term

ECM (-1) = Error Correction Term

t = respective variables at time t

The coefficients  $\beta_1, \beta_2, \beta_3$ , are the parameters of the model which gauged the strengths of the direction between INDPERM and independent variables while the  $\varepsilon_t$  represents stochastic error term which accounts for other factors that may affect industrial performance but is not captured by the model. We added the exchange rate as a control variable to the model since it plays a significant role in the link between cross-border investments and industrial development. Apriori expectations as derived from the empirical review of our variables could be expressed as:  $\beta_1, \beta_2, \beta_3, > 0$ .

To test the model, we adopted the Error Correction Model (ECM), which help to identify the impact of both the long-run and short-run effects among the variables, as well as the feedback and adjustment effects, the number of disequilibrium being rectified, and the long run response (Abdul & Barnabas, 2012). These attributes made ECM better than the traditional ordinary regression

method because of the flexibility and capacity to evaluate the pace of adjustment of the dependent variable when it deviates from its steady-state path owing to unequal fluctuations in the independent variables

To able to verify the stationarity of the variables, we conducted the Augmented Dickey-Fuller (ADF) test, we also conducted the Granger causality test, to test for causality between the variables, and the Breusch-Godfrey serial correlation test was carried out to test for usefulness as well as reliability of the model, and hence authentication of our analysis. All the analyses (tests) were conducted with econometric software (E-view 8.0) at a 1% and 5% level of significance.

#### 4. EMPIRICAL ANALYSIS AND RESULTS

##### 4.1 STATIONARITY (UNIT ROOT) TEST OF THE VARIABLES

A variable is stationary when the result of the test statistic (Augmented Dickey-Fuller) is greater than the critical value, and if it is the reverse, it is non stationary. The unit root test was conducted at one percent level of significant.

*Table 4.1: ADF unit root test*

Augmented Dickey-Fuller Test				
Variable	ADF Stat	Order	1% Critical Values	Remark
INDPERM	-7.488980	I(2)	-3.724070	Stationary
FDI	-8.873421	I(2)	-3.689194	Stationary
FPI	-6.957085	I(2)	-3.724070	Stationary
EXRATE	-7.825442	I(2)	-3.679322	Stationary

*Source: Extracted from E-view 8.0 Output (Authors' Computation, 2022).*

When compared with corresponding critical values, the results of the ADF test indicates that all the variables are stationary at second order differencing I(2) at 1% significance level, hence, the null hypothesis ( $H_0$ ) of a unit root can be rejected. Thus, the Engle and Granger two stage co-integration approach is applied to examine the long run relationship among the variables.

##### 4.2 CO-INTEGRATION RESULTS

The Engle and Granger co-integration test results is shown in table 4.2

*Table 4.2: Engle and granger co-integration test*

Variable	ADF test	Critical Value at 1%	Remark
ECM	-4.080879	-3.670170	Stationary

*Source: Extracted from E-view 8.0 Output (Authors' Computation, 2022).*

The co-integration results showed in Table 4.2 indicates that the residuals from the regression results are stationary or integrated of order one at 1% level of significance, which indicated that FPI, FDI and exchange rate are co-integrated with industrial performance in Nigeria over the periods under investigation (1988–2020) at 1% level of significant. This means that, at the long run, cross border investments gauged with FPI and FDI significantly explained the performance of industrial sector, and any short run deviation in their relationships would return to equilibrium in the long run.

### 4.3 GRANGER CAUSALITY RESULTS

**Table 4.3:** Granger causality test

Null Hypothesis	F-Statistic	P-value	Decision	Type of Causality
FDI → IDPERM	8.46971	0.0016	Reject $H_0$	Uni-directional causality
IDPERM → FDI	1.22405	0.3111	DNR $H_0$	
FPI → IDPERM	5.54368	0.0102	Reject $H_0$	Bi-directional causality
IDPERM → FPI	4.78398	0.0174	Reject $H_0$	
EXRATE → IDPERM	2.89264	0.0741	DNR $H_0$	No causality
IDPERM → EXRATE	3.43311	0.0482	DNR $H_0$	
FPI → FDI	1.97857	0.1593	DNR $H_0$	Uni-directional causality
FDI → FPI	5.56626	0.0100	Reject $H_0$	
EXRATE → FDI	1.84062	0.1796	DNR $H_0$	No causality
FDI → EXRATE	0.50316	0.6106	DNR $H_0$	
EXRATE → FPI	2.97623	0.0693	DNR $H_0$	No causality
FPI → EXRATE	1.37483	0.2714	DNR $H_0$	

Source: Extracted from E-view 8.0 Output (Authors' Computation, 2022)

Key:  $\alpha = 0.05$ ,  $\rightarrow$  = does not Granger cause, Decision rule = Reject  $H_0$  if P-value < 0.05, DNR = Do not reject.

### 4.4 PARSIMONIOUS ERROR CORRECTION MODEL RESULTS

**Table 4.4:** ECM short run

Dependent Variable: D(IDPERM(-1),2)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.34E+08	6.01E+08	-0.389306	0.7005
D(FDI(-1),2)	-0.358844	0.337129	-1.064410	0.2977
D(FPI(-1),2)	0.585836	0.162484	3.605498	0.0014

D(EXRATE(-1),2)	-43299133	30572763	-1.416265	0.1695
ECM(-1)	-0.247711	0.080556	-3.074999	0.0052
R-squared	0.530388	Mean dependent var		-3.41E+08
Adjusted R-squared	0.452119	S.D. dependent var		4.35E+09
S.E. of regression	3.22E+09	Akaike info criterion		46.77767
Sum squared resid	2.49E+20	Schwarz criterion		47.01341
Log likelihood	-673.2762	Hannan-Quinn criter.		46.85150
F-statistic	6.776508	Durbin-Watson stat		2.009755
Prob(F-statistic)	0.000847			

Source: Extracted from E-view 8.0 (Authors' Computation, 2022)

The estimation results in Table 4.4 reveal that the explanatory variables FDI, FPI, and exchange rate jointly account for 0.5304 systematic changes in industrial performance. This implies that approximately 53% of the systematic and dynamic variations in industrial performance were explained by the explanatory variables included in the model. When the adjusted coefficient of determination was adjusted for a degree of freedom, it accounted for 45% variations in industrial performance. This means that model has a goodness of fit as it reflects most of what happens to the performance of the Nigerian industrial sector over the period of 1988-2020. The F-statistic test reveals that there exist statistically significant linear relationships between the dependent and the dependent variables at 1% levels (F-value = 6.77 and p-value = 0. 0.000847) in the ECM. This, therefore, means that all the independent variables combined have a significant relationship with the dependent variable.

Judging from the t-statistics for FDI (-1.064410), FPI (3.605498), and Exrate (-1.416265), only FPI had a significant positive effect on industrial performance in the short run while FDI and Exchange rate had a weak negative effect on industrial performance at the short run. The Durbin Watson statistics of 2.0098 shows the absence of autocorrelation. This further substantiates the reliability of the result of the Error Correction Model.

#### 4.5 SERIAL CORRELATION TEST

The result of serial correlation test is shown in table 4.5

**Table 4.5:** Breusch-Godfrey serial correlation LM test:

F-statistic	0.634044	Prob. F(2,22)	0.5399
Obs*R-squared	1.580472	Prob. Chi-Square(2)	0.4537

Source: Extracted from E-view 8.0 Output (Authors' Computation, 2022)

The serial correlation test was conducted using Breusch-Godfrey (B-G) serial correlation LM test and the results of the test indicated that no serial correlation

problems in the model as probability value of 0.5399 is greater than 5% level of significant.

#### 4.6 DISCUSSION OF FINDINGS

The study reveals that FDI has a weak negative effect on industrial performance. This finding is consistent with the studies of Adejumo (2013), Nwosa (2018), Adebajo *et al.* (2019), and Zhou *et al.* (2019). The negative weak effect of FDI on industrial performance may have been occasioned by the crowded-out effect of domestic investment. FDI often ground out domestic firms in the industrial sector through the offering of similar or close products with indigenous firms and investing heavily in advertising to promote the close substitute products offered.

The study also revealed that FPI has a significant positive effect on industrial performance in Nigeria. This finding is consistent with Okonkwo (2016), and Ezeanyej and Ifeako (2019). The positive significant effect of FPI on industrial performance may be due to the capacity of FPI to generate strong capital formation that assists industries to gain access to competitive loans at a low interest rate to increase production processes. The findings of this study on the effect of FDI and FPI disconfirmed and confirmed our theoretical expectation respectively.

However, Iddrisu *et al.* (2015) indicated that the impact of cross border investments on industrial sectors can only be positive when they such investment complement domestic firms by buying inputs from domestic firms and will be negative when sourced inputs abroad as well as offering the same products with that of domestic firms. This is however not the case in Nigeria. In addition, the near absence of infrastructural facilities, unwillingness to develop strong institutional governance, and inadequate high skill human capital needed to imitate, absorb, assimilate, replicate, and harness technologies and capital transfers by foreign investors may have combined with other factors to account for the negative impact of FDI on industrial performance in Nigeria.

On the effect of the exchange rate, the study reveals that the exchange rate has a weak negative effect on industrial performance in Nigeria. This also goes contrary to the expected a priori sign. However, the finding is consistent with the studies of Habibur and Ismail (2003). Ayinde (2014), Iddrisu *et al.* (2015), and Adebajo *et al.* (2019). The negative effect of the exchange rate on industrial performance means that the present period in Nigeria has seen a fall in industrial production due to an increase in the exchange rate over the previous era. Imported inputs account for a significant portion of the Nigerian manufacturing sector's inputs. A rise in the real exchange rate is likely to raise the sector's production cost profile. Because this industry imports a substantial percentage of its inputs, the increasing exchange rate is likely to add to the sector's operating costs. As a result, the output is lowered when the cost of machinery and the hiring of expatriates become too high

to bear. The time gap between the time of input procurement and the time of final manufacturing could be the source of this leak.

## 5. CONCLUSION AND RECOMMENDATIONS

The study examined the impact of cross-border investments on industrial performance in Nigeria for the period of 1988-2020 sourced from the World Bank. The study adopted Augmented Dickey-Fuller (ADF) test, co-integration techniques, Granger causality test, and Error Correction Model (ECM) as methods of data analysis. Specifically, the study revealed that FDI and exchange rate had a weak negative effect on industrial development in Nigeria while FPI had a positive significant effect on industrial performance. Therefore, the effect of cross-border investments on industrial performance depends on the quality of human capital, infrastructural development, strong institutional governance, and regulation of the recipient countries, which appear to be lacking in Nigeria.

Based on the findings that FDI is negatively associated with industrial performance in the country, we, therefore, recommend that the government of Nigeria should develop policies that will ensure FDI sources inputs locally (promote backward linkage by sourcing inputs from local firms in Nigeria) except such inputs are not available in Nigeria. They should also encourage foreign-owned firms through tax incentives to reinvest their earnings in the country. In addition, the government of Nigeria should strengthen and upgrade the quality of education to boost human capital to realize the positive spillover effects of technology and capital transfer by foreign investors. The government must encourage FDI that is best suited to local conditions and provide incentives and collaborate with foreign investors to develop the test, research, and development centers for small-medium enterprise SMEs in Nigeria.

The study also revealed that FPI has a significant positive effect on industrial performance in Nigeria. In this regard, we, therefore, recommend that the government of Nigeria should strive to include the Federal Government of Nigeria's (FGN) bonds in various international markets, ensure sanity in security or stock exchange market and provide a friendly business environment to increase foreign participation in debt and security market of Nigeria that may cause a quantum leap in the inflows of cross border investments. These strategies will enable Nigeria to further increase domestic savings to mobilize long term funds and reduce the interest rate that may stimulate entrepreneurs to borrow to start new investments, expand existing business or production capacities and invest in high-tech industries that is imperative to increase the performance of manufacturing industries and accelerate rapid industrialization or industrial development in the country.

Finally, the study also revealed that the exchange rate had a weak negative effect on industrial performance in Nigeria. We recommend reducing the demand for foreign currency through placing an embargo on imported raw material and used

items from abroad among others as well as developing the agriculture and manufacturing sector to produce imported items and more export-oriented to generate greater foreign earnings to sustain the stability of the naira.

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