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Effect of Foreign Currency Translation on Performance of Selected Manuafacturing Firms in Nigeria

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Abstract: The study evaluated the effect of foreign currency translation on the performance of selected manufacturing firms in Nigeria. Specifically, the study evaluated effect of exchange rate, transaction rate and interest rate on profit after tax of selected manufacturing firms in Nigeria. In a bid to accomplish this, panel regression analysis of fixed and random effect on ten (10) selected manufacturing firms in Nigeria were incorporated. The study employed secondary data; the data for the study covered the period 2013 to 2022. The Hausman test carried out showed that fixed effect model is more realistic and produced a better result which was therefore employed in drawing inferences in the study. From the result, exchange rate exhibited significant negative relationship; Interest rate has insignificant positive relationship, while the translation rate indicated insignificant negative relationship with selected manufacturing firms, performance in Nieria. Hence, the study concluded that unfavourable movement and adjustment in foreign currency translation rate affect the performance of selected manufacturing firms in Nigeria, especially, when measured performance in term of profit after tax (PAT). It was recommended that manufacturing firms should develop a mechanism to hedge against foreign exchange rate exposure caused by unanticipated movement in the exchange rate. More so, this should be supported by sound risk management strategies that can withstand macroeconomic instability especially inflation rate in the host economy.

Keywords: Foreign currency; currency translation; Profit after tax

1. Introduction

The complex business landscapes of emerging nations like Nigeria provide challenges for multinational firms in resolving internal divisions and external disputes (Shehu, 2015). Manufacturing in Nigeria has played an important role in the country's economic growth since the early 1900s (Ubesie & Ezeagu, 2014). This sector encompasses several other industries as well, including as marketing, logistics, real estate, agriculture, and energy. Some foreign companies have been operating in Nigeria for decades despite the country's changing legal and economic climate. The development of employment and the delivery of essential products and services to citizens have also benefited greatly from the sector. Businesses in Nigeria are placing less emphasis on dealing in foreign currency since it affects transaction price, profitability, resource allocation, and investor sentiment. With the Nigerian Naira falling in value against the US dollar to as high as N650, it is challenging for companies to function at the optimum rates and cost levels. A weak Naira, according to certain stakeholders, reduces

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competitiveness, therefore the movements of the currency rate have aroused public attention. Foreign currency and exchange rate swings have been blamed for sluggish performance by Nigerian businesses, thus it's important to look into the issue. Adebiyi (2006) argues that currency stability is especially important when lending money to import-reliant nations like Nigeria. When many currencies are involved in international commerce, the fluctuation of exchange rates becomes a significant factor because it affects the fiscal intermediation process of multinational corporations (Danish, 2012). Because no nation operates in a vacuum, it is necessary to utilize foreign currencies to conduct international business. Therefore, the rate of exchange is an active macroeconomic component that has an impact on business activities (Adetayo, 2004). Interest rates, fads, and the possibility of new legislation may all influence the demand for a country's currency, which in turn affects the value of that currency (Berger & Bouwman, 2010). Despite the government's best efforts, the Nigerian Naira has lost value against the U.S. dollar during the last several years. The Naira rose from N8.0378 to N85.98 between 1990 and 1999. The following years saw more depreciation, with 2010 seeing a value of N151.51, 2011 at N162.30, and 2012 at N156.15. N158.05 in 2013, N175.85 in 2014, and N232.40 in 2015 all followed the depreciation trend begun in 2013. N300.757 was the exchange rate on December 31, 2016, while N660 was the rate on August 20, 2022. It is on this note that, this study seeks to examine the effects of foreign currency and translation on financial performance of multinational companies in Nigeria over a period of 10 years 2012 to 2021.

2. Literature Review

2.1.1. Rate of Exchange

What determines how much one currency is worth in terms of another is called the exchange rate. A currency exchange rate is the price at which one currency may be purchased with another currency. The foreign exchange request is the marketplace for buying and selling foreign currency. This activity affects the value of one currency relative to another. Because it establishes the relative worth of goods, services, and fiscal measures denominated in different currencies, the exchange rate plays a critical role in international commerce and fiscal accords. The exchange rate mediates the disparity between local and international demand, making cross-border trade of goods and services as well as financial transactions possible.

2.1.2. Transaction Rate

Foreign and domestic demand are linked via the exchange rate, which facilitates the flow of money and the exchange of goods and services between countries (Reid & Joshua, 2004). It indicates the worth of one currency in terms of another. The relative cost of domestic and foreign-made products, as well as the level of involvement of the international private sector in cross-border commerce, are all strongly influenced by the exchange rate. Developing nations, whose trade liberalization is seen as important for profitable development (Owolabi & Adegbite, 2017), are frequent users of interest rate fluctuations in international financing.

2.1.3. The Rate of Inflation

Inflation refers to the average annual percentage increase in prices for a set of goods and services. It is a measure of the general increase in the cost of living within a nation. How much more plutocracy is needed to buy the same products and services over a specific amount of time is represented by the degree of price increase, or affectation (Wikipedia, 2022).

2.1.4. Rate of Interest

What this means is that within this time frame it is more likely that the most money will be owing, deposited, or lobbied for. The interest rate reflects how much individuals are ready to spend now rather than put away for their children's future. In exchange for the use of borrowed money, borrowers agree to pay an interest rate. However, the real interest rate takes into account the plutocrat's buying power and is therefore adjusted for inflation. The Fisher equation shows that the real interest rate is close to the nominal interest rate minus the affectation rate, as stated by Wikipedia (2022).

2.1.5. Business Outcome

Commercial performance, as defined by the European Central Bank (2010), is an organization's ability to sustainably create profits over a certain time frame. By growing equity and future profits via the preservation of retained earnings, profitability safeguards banks against unforeseen losses. Alabede (2012) claims that the profitability of banks is affected by both internal and external variables. Macroeconomic factors such as financial programs, exchange rates, inflation, profitable growth, and others are examples of external determinants, whereas examples of internal determinants include liquidity, capital acceptance, functional charges, and others. These factors affect a company's bottom line, and savvy investors choose profitable businesses.

2.2. Theoretical Underpinned

The study anchored on purchasing power parity theory. This theory was developed by Menon and Viswanathan in (2005) PPP theory explains that the value of homogenous goods is similar in different countries based on the currency of each country. When nations have similar purchasing power, there should be parity in their rates of exchange for currencies. Further, Reid and Joshua (2004) argued that a country's exchange rate should reflect the actual cost of living there. However, Ross (2008) stressed that the currency of a nation could potentially be misvalued, leaving people with less bargaining power than would otherwise be the case given the pricing circumstances in the country. The PPP plan assumes that there would be no transaction fees, no trade barriers, and free movement of commodities. If these conditions are met, then the price of an item should be the same in every country where it is sold, adjusted for inflation using the current exchange rate. According to the research, using price pointers is the best way to determine the actual cost of a standardized product in different nations.

2.3. Empirical Evidence

Okika (2018) analyzed how much earnings publicly listed Nigerian companies lost due to currency swings. Interaction in the context of fluctuating currency and return on capital employed was the primary focus of the study. Supplementary information from annual reports and the Central Bank of Nigeria's statistical bulletin were used in the study. The effect of currency exchange rate variations on profits was studied using a multiple retrogression analysis performed in SPSSv21. The results of the investigation tended to disprove the questioned theories. In light of these results, the study recommended that the government keep the restrictions on imports of similar goods made in Nigeria as they are now. With this plan in place, the production and consumption of locally sourced items would both flourish. The government of Nigeria might also take steps to improve the value of the naira relative to other currencies, which would significantly reduce the price of manufactured products.

Williams (2018) examined the impact of fluctuating exchange rates on commercial performance in Nigeria. The purpose of this study is to add to the existing literature by assessing the effects of currency fluctuations in the Nigerian context. There were a total of seven research questions formulated and seven speculations examined. The major goal was to dispassionately investigate how fluctuations in currency markets affect investor returns. Panel data was analyzed using descriptive and ordinary least squares methods during the years of 2012 and 2016. The research showed that the exchange rate significantly affected ROI because of the role banks play in setting exchange rates. The retrogression study, using a 145.4265 value, found a positive correlation between ROI and the currency exchange rate. In other words, if the exchange rate were to rise from 145.4265 to 145.4266, the return on investment would rise by the same amount. The research accepted the necessary assumption that there is a significant relationship between the exchange rate and return on investment (institutional performance) since the T-value was 0.287, which is less than 0.05. There was a positive correlation between ROI and other model parameters that were independently manipulated. Approximately 67% of the variation in ROI could be attributed to the independent variables, as indicated by the retrogression result's measure of determination.

In South Sudan, Pitia and Lado (2015) used a granger-reasoning technique to study the connection between the exchange rate and inflation. Data from August 2011 through November 2014 were utilized for the analysis. Devaluing the South Sudanese currency diminishes the country's frugality, as seen by a one-way link between the exchange rate and the Consumer Price Index (CPI). However, a feedback effect was not discovered, indicating that shifts in the CPI did not result in shifts in the rate of exchange. It should be noted that the confidence in these results is low. The effect of rising price pressure on the exchange rate may have been shown by fiscal authorities' reaction to correcting the imbalance between pricing and bargaining power inside the economy.

To further explore the effect of the exchange rate on Nigerian thrift, Ayodele (2014) also performed an experimental study. Specific attention was paid to the effects of important drivers, such as the exchange rate and the rate of inflation, on shifts in Nigeria's gross domestic product. The Annual Reports of the Central Bank of Nigeria (CBN), the Nigerian Stock Exchange (NSE), and the Nigeria Securities and Exchange Commission (SEC) were mined for supplementary information. Ordinary Least Squares (OLS) analysis was used to break down the data. The statistics show that the exchange rate and the affectation rate both have significant effects on GDP and profitable growth in Nigeria. A higher exchange rate is expected to have a depressing effect on GDP, suggesting that profitable growth may slow as a result. In contrast, the affectation rate was positively related to GDP, suggesting that increased affectation rates encourage enterprise expansion and greater output. The report's last recommendation was for the government to take action to make Nigeria a more attractive place for investors by improving the country's infrastructure, strengthening its legal framework, and advertising its wares. These measures would help ease currency pressures and boost the exchange rate, both of which would boost GDP growth.

Ebaidalla (2014) looked at the effects of a real exchange rate mismatch on business results in Sudan. From 1979 to 2009, the inquiry examined the development of both the equilibrium exchange rate and the actual exchange rate misalignment in Sudan. The effect of a mismatch between the actual exchange rate and profits was also investigated. The equilibrium exchange rate was shown to be significantly affected by policy problems including willingness to trade, government expenditure, and taxes, as shown by empirical data. The results also indicated that overvaluation of the Sudanese currency had a negative impact on the country's traditionally modest culture.

Exchange rate changes were studied by Opaluwa, Umeh, and Ameh (2010), who looked at their impact on the Nigerian industrial sector from 1986 to 2005. Due to its dependence on imported inputs and capital goods paid for in fluctuating foreign currency, the manufacturing sector in Nigeria was found to be vulnerable to exchange rate changes, according to the report. Retrogression analysis was the econometric instrument used in this work, which followed an empirical exploratory methodology. The rate of manufacturing employment and the level of foreign private investment were included as explanatory variables in the model. Statistically substantial negative effects on the sector's performance were discovered at the conclusion of the retrogression study, but positive effects were also detected.

Based on the above empirical review, there little works that has been carried out on foreign currency transaction and transaction and performance of supranational companies particularly, in the context of Nigerian firms. Hence, this study investigated the effect of foreign currency transaction and translation on the performance of listed supranational companies in Nigeria.

3. Methodology

The study used an explanatory research design. The explanatory research designs was utilized because the data needed for analysis already exist and it enables exploring relationships between two or more variables. The study utilized secondary source of data. In order to investigate the effect of foreign currency and translation on performance of supranational companies in Nigeria, information from Central Bank of Nigeria Statistical Bulletin and annual reports of Nestle Plc; Cadbury Plc, Dangote Flour Plc. (DF), Flour Mills Nig. Plc(FM), Guinness Nig. Plc (GN), Golden Guinness Breweries Plc (GB), Dangote Cement Plc (DC), Nestle Nig Plc. (NE) and PZ Cusson Nig. Plc was used. Real translation rate, real inflation rate, real interest rate and exchange rate were utilized to measure foreign currency and translation while performance was measured with Profit after tax (PAT). The study covered period of years 2013- 2022 (10years) with aid of panel regression analysis.

Model Specification

The study adapt the model of Okika, (2018), who examined the relationship between exchange rate fluctuation and profitability of companies in Nigeria using Exchange rate (EXCHr), Inflation rate (INFr) as the independent variables and regressed against the dependent variable Return on capital employed (ROCE) used as proxy for financial performance. The model stated as follows:

ROCE=f (EXCHr, INFr) (1)

With modification this study introduced real translation rate, real interest rate to measured foreign currency and return on assets to measured performance. However, the modification model stated below:

PAT=f (RTR, RINR, RINR, REXHR) (2)

Financial performance indicators such as Profit after tax (PAT) and foreign currency translation variables such as Real translation rate (RTR), Real inflation rate (RINR) and Real interest rate (RINR), Real Exchange rate (REXHR); pooling observations across firms and time, without taking into consideration the uniqueness/heterogeneity that may exist in the firms during this time period (2001-2021). In linear forms the models are stated below:

$$PAT_{it} = \delta_0 + \delta_1 RTR_{it} + \delta_2 RINR_{it} + \delta_3 RINR_{it} + \delta_4 EXHR_{it} + \mu_2 \quad ---3$$

The definition of the variable is shown below:

Where;

PAT= Profit after tax

RSR=Real translation rate

RINR=Real Inflation rate

RINR=Real interest rate

EXHR= Exchange rate

δ_0=Constant

$a_1a_2a_3$=Vector of the independent variables

it=cross sectional of the observation and period of the study

μ_1, μ_2 = is the error term

4. Results and Discussions

To begin unraveling the impact of currency conversion on the bottom lines of Nigeria's publicly traded manufacturers, this research examines descriptive data. The outcomes of this research are shown in Table 4.1.

4.1. Descriptive Statistics

Table 4.1 Descriptive Statistics of Variables

	PAT	EXHR	INFR	INTR	TRR
Mean	2.087550	5.502886	2.463561	2.779866	0.085190
Median	2.635585	5.722899	2.484907	2.816775	0.030907
Maximum	3.500000	6.000000	3.000000	3.000000	0.300000
Minimum	1.000000	5.000000	2.000000	2.500000	-0.200000
Std. Dev.	0.892481	0.872361	0.749893	0.535862	0.187082
Skewness	-0.683617	-0.433562	-0.119458	-0.899165	0.935222
Kurtosis	2.729890	1.300521	2.116203	3.287919	2.516551
Jarque-Bera	5.562402	3.846102	4.276974	8.242170	6.171898
Probability	0.061729	0.146987	0.118872	0.016139	0.045402
Sum	103.2675	269.6414	120.7145	136.2134	4.174313
Sum Sq. Dev.	44.690721	40.764922	23.672297	11.883532	1.202526
Observations	49	49	49	49	49

Source: Author's Computation (2023)

Several statistical measures, including post-tax profit, exchange rate, affectation rate, interest rate, and restatement rate, are described in Table 4.1. The averages of these numbers are as follows: 2.087550; 5.502886; 2.463561; 2.779866; and 0.085190. Variables' ranges are shown by their lowest and maximum values. Return on assets has the largest standard deviation, whereas the restatement rate has the smallest. The skewness numbers, which are positive for the restatement rate and negative for the profit after duty, exchange rate, affectation rate, and interest rate, show the asymmetry of the

distribution. The interest rate is leptokurtic, whereas the other variables are platykurtic, as shown by the kurtosis values, which describe the shape of the distribution. Only the affectation rate seems to have a normal distribution, according to the Jarque-Bera test.

4.2. Panel Unit Root

Table 4.2. Unit Root Test (Summary)

Variables	Panel Unit Root Test Method			
	Levin, Lin & Chu (LLC)		ADF Fisher statistics	
	LLC statistics	Integration order	ADF Fisher statistics	Integration order
PAT	-3.79048	I(1)	26.8072	I(1)
EXHR	-26.6889	I(1)	59.7209	I(1)
INFR	-6.22200	I(1)	37.8710	I(1)
INTR	-7.70514	I(0)	35.1735	I(0)
TRR	-6.28371	I(1)	38.3586	I(1)

Source: Author's Computation (2023)

Table 4.2 displays the results of a unit root test that was run using data from the LLC and ADF tests. The table shows that with the exception of the interest rate variable, which is stationary at position, all of the other components used to analyze the effect of foreign currency on the fiscal health of Nigerian listed manufacturing businesses were intended to be fixed at the first difference.

4.3. Correlation Analysis

Table 4.3. Correlation Analysis

	PAT	EXHR	INFR	INTR	TRR
PAT	1	-0.3642	-0.2090	0.2467	-0.0151
EXHR	-0.3642	1	0.6644	-0.3639	0.0821
INFR	-0.2090	0.6644	1	-0.1614	0.4708
INTR	0.2467	-0.3639	-0.1614	1	0.3493
TRR	-0.0151	0.0821	0.4708	0.3493	1

Source: Author's Computation (2023)

Table 4.3 displays the results of a study that examined the relationship between the value of foreign currency and the financial results of Nigerian listed manufacturing businesses. According to the data, there is a negative association between the exchange rate, inflation, and the para rate for these businesses (-0.3642, -0.2090, and -0.0151, respectively). However, there is a positive correlation of 0.2467 between the yield rate and monetary output.

4.4. Estimates of Parameters for Panel Regression Model

Table 4.4. Fixed Effect (FE) and Random Effect (RE) Specification

Independent Var	Fixed Effects	Random Effects
Constant	3.363507 (3.676589)	3.357772 (3.698657)
EXHR	-1.178617*** (0.416249)	-1.184570*** (0.416226)

INFR	-0.292940 (0.615395)	-0.303584 (0.615345)
INTR	1.656067* (0.951407)	1.652092* (0.951403)
TRR	-1.355581 (1.240363)	-1.336499 (1.240284)
No. observations	49	49
R-squared	0.735650	0.343190
Adjusted R^2	0.682779	0.283480
F-statistics	13.91429	5.747602
Prob. (F-	0.000000	0.000823
Dubin-Watson	1.103096	0.983940

*Note: Standard errors are provided in parentheses. *, **, *** showed the significance at 10%, 5% and 1% level respectively.*
Source: Author's Computation (2023)

Using panel retrogression analysis, in particular fixed and arbitrary effect models, this research analyzed the influence of foreign capital on the financial health of Nigerian listed fraudulent enterprises. Under the fixed effect and arbitrary effect models, the research anticipated that the performance of listed manufacturing businesses would increase by 3.363507 and 3.5772 units, respectively, while all other independent variables were kept constant.

Moreover, in both fixed and random effect models, the research found a strong negative relationship between the exchange rate and the performance of Nigeria's listed industrial enterprises. The individual components of the exchange rate were forecasted to be -1.178617 and -1.184570. The performance of publicly traded manufacturing firms would decrease by 1.178617 and 1.184570 units, respectively, if the exchange rate increased by one unit, as predicted by the fixed and arbitrary impact models.

Note that the minus sign indicates that variations in the currency rate have a detrimental effect on the profitability of Nigeria's publicly traded industrial companies.

These results emphasize the significance of stable exchange rates to the financial success of Nigerian industrial enterprises that are publicly traded. Furthermore, sections of0.2994 and0.3584 units in the fixed and arbitrary effect models were chosen so as to have a negative and moderate influence on performance. This means that if inflation were to rise in Nigeria, the performance of publicly traded industrial firms in the country would suffer.

Meanwhile, interest rate sections of 1.656067 and 1.655202 units in the fixed and arbitrary impact models were calculated to have a positive but minor correlation with performance. This indicates that listed manufacturing businesses would benefit marginally from a one-unit rise in interest rates.

Parabola rates were found to be affected by a small but measurable amount, with sections of -1.355581 units in the fixed effect model and -1.336499 units in the random effect model. As a consequence, the performance of Nigeria's publicly traded industrial firms would decline with every one-unit rise in the para rate.

R-squared values, which are a measure of how much friction can be attributed to independent variables, were 0.735650 in the fixed effect model and 0.343190 in the arbitrary effect model. The F-statistics for both the fixed and random effect models were statistically significant: 13.91429 and 5.747602, respectively. These results provide strong evidence that the models are adequately describing the relationship between the variables and have statistical significance.

4.5. Hausman Test Result

Table 4.5. Result of Hausman Test

Correlated Random Effects - Hausman Test			
Summary of Test	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.256412	4	0.0072

Source: Author's Computation with E-views, Version 9 (2022)

Table 4.5 shows that the ki-square probability for the fixed effect model in the research is 0.0072, providing strong evidence for the model's reliability and validity. The present research also employed the fixed effect model for its vaticination procedures.

4.6. Discussion of Findings and Implications

This research looked at how a foreign currency restatement affected the financial results of made-up companies trading on Nigerian stock exchanges. From 2013 through 2022, 10 different manufacturers were analyzed using a panel retrogression analysis using fixed and arbitrary products models. Results from the fixed effect model were utilized to draw conclusions since they were deemed more relevant and superior by the Hausman test. The results showed that the Nigerian exchange rate has a significant negative relationship with the financial health of listed artificial enterprises. This indicates that the performance of tightly traded fictional businesses is negatively impacted by a hostile exchange rate inside the nation. This discovery is consistent with the work of Williams (2018), Ayodele (2014), and Ebaidalla (2014), among others.

Inflation in Nigeria was shown to have a negative correlation with business success. Findings are in line with those of Ayodele (2014), Okika (2018), and other related studies, which all point to inflation as a drag on Nigerian corporate performance. The interest rate was positively related to the success of Nigeria's publicly traded industrial companies, whereas the para rate was negatively related. Williams (2018), Okika (2018), and other studies all come to similar conclusions, therefore this isn't an isolated study. With a value of 13.91429 and a p-value of 0.000000, the overall statistical significance of the fixed effect model was verified, indicating that the model is highly significant at any position. The model explains around 73.6 of the variations in manufacturing business performance (with the remaining 26.4 owing to stochastic basics in the model), as shown by the multiple determination measure (R-squared) of 0.735650.

Table 4.5 shows that there is statistical significance for the fixed effect model used in the investigation, indicating that the model is credible and appropriate. The present research also employed the fixed effect model for its vaticination procedures.

5. Conclusion and Recommendations

According to the results of this research, the interpretation of Nigeria's listed manufacturing businesses is strongly correlated with the trade rate, but in a negative way. There is a negative effect from inflation and rising rates, but the interest rate has a positive effect. According to the study, the meaning of Nigeria's publicly traded artificial firms may be affected by fluctuations in the value of the naira. The research also found that in Nigeria, the trade rate is inversely related to the currency parity rate. Given these results, it is suggested that privately held manufacturing companies take precautions

against the risks associated with transnational trade rates brought on by fluctuations in the foreign exchange market.

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