JMEE

Journal of Marketing and Emerging Economics

| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

Impact of Currency Fluctuations on International Business and Cost Effectiveness in Nigeria

Oyegun Gbenga, Ph.D
Wellspring University, Benin City, Edo State, Nigeria,
Oyegun_gbenga@yahoo.com

Ofie, Francis Ejime
Wellspring University, Benin City, Edo State, Nigeria,
francisofie@gmail.com

Abstract

The study looked at how currency fluctuations affected cost-effectiveness and global trade. The study's goal was to investigate how exchange rate fluctuations affected Nigeria's multinational enterprises' financial performance. The transaction cost theory is the foundation of this study. The use of secondary data sources was investigated while presenting the situation's facts. The secondary data were gathered from pertinent literature, the Statistical Bulletin of the Central Bank of Nigeria, and the annual reports of particular international corporations operating in Nigeria. The Ordinary Least Square Linear Regression model was used to test the data. The results demonstrate that the performance of multinational corporations in Nigeria is significantly impacted by exchange rate fluctuations. The study came to the conclusion that fluctuating exchange rates have an impact on how businesses in Nigeria conduct their business with other nations around the world. It was advised that multinational corporations create a solid framework for managing foreign exchange risk that would make explicit how they assess currency risk and implement their foreign exchange risk management plan. These tactics should be regularly monitored and modified.

Keywords: *Currency, Fluctuations, International Business, Cost Effectiveness.*

Introduction

The natural result of floating exchange rates, which are present in the majority of the world's major economies, are currency volatility. Exchange rates are influenced by a number of variables, including capital flows, inflation expectations, inflation expectations, and interest rate discrepancies, among others. The value of a country's currency is determined by how strong or weak its economy is, which can cause swings at any time.

Because of the volatility and illiquidity of the foreign exchange market, it is difficult to forecast future prices. Due to their intrinsic exposure to currency risks, international importers and exporters face a large risk from such swings (Allayannis & Weston, 2011). Changes and fluctuations in the values and purchase costs of raw materials denominated in foreign currencies might result in gains or losses for manufacturing enterprises in Nigeria that produce consumer and industrial goods. These businesses are exposed to foreign exchange risks by engaging in exporting and importing (Azeez, Kolapo & Ajayi, 2012).

JMEE
Journal of Marketing and Emerging Economics
| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

The fluctuation of foreign exchange rates emerges as an intriguing aspect affecting the performance of manufacturing enterprises and their financial intermediation process in international trade where different currencies are involved (Danish, 2012). Because of the interdependence of nations and the commerce they engage in, foreign currency rates are easily available. Exchange rates are therefore essential to commerce and dynamic macroeconomic factors (Adetayo, 2004). The trade balance is greatly influenced by changes in the exchange rate. Changes in the domestic currency supply are influenced by a nation's fiscal and monetary policies, whereas interest rates, inflation, and beliefs of impending government control all have an impact on changes in the demand for currency (Berger & Bouwman, 2010)..

The stock returns of companies may be impacted by a variety of macroeconomic and sector-specific factors. Exchange rates are now one of the main factors influencing business profitability and share prices due to the continued expansion of global trade and capital flows. (Bradley & Moles, 2002).

When it comes to adopting structural reforms like lowering imports or increasing non-oil exports, which frequently result in a devaluation of the nominal exchange rate (Bagchi & Chakrabarti, 2012), exchange rate policies in developing nations can be complicated and contentious. Despite being necessary, these changes may have an immediate influence on prices and demand, raising concerns about possible economic harm. Intriguingly, developing economies that primarily rely on imports for production and consumption rarely discuss the inherent distortions of an overvalued exchange rate regime.

The exchange rate policy of Nigeria has changed significantly over time. Following its declaration of independence, the nation initially kept its exchange rate with the British pound constant. After an economic crisis between 1982 and 1985, the policy changed during the 1970s oil boom, and in 1986, the currency was permitted to float (Majumdar, 2017). Economic and political decisions made during each of these periods had a significant impact on the real income, inflation, balance of payments, and structural evolution of the economy. Therefore, the main goal of this study is to ascertain how exchange rate changes affect Nigerian multinational corporations' performance ratings (Dada & Oyeranti, 2012).

Objectives of the Study

The study is focused on examining the impact of currency fluctuations on international business and cost effectiveness. Specifically, the study seeks to:

1. Examine how currency fluctuations by proxy exchange rate affect financial performance of international businesses
2. Determine if there is a significant effect of exchange rate fluctuation on return on assets of firms in Nigeria

Literature Review

Exchange Rate Fluctuation and Financial Performance

The value of one unit of foreign currency in terms of the local currency is referred to as the exchange rate (Nydahl, 1999). The local and international markets for products, services, and financial assets are fundamentally connected through it (Reid & Joshua, 2004). The price of a country's currency in relation to another currency is essentially what the exchange rate indicates. This rate affects the level of participation in international trade as well as the relative prices of domestic and foreign commodities.

JMEE
Journal of Marketing and Emerging Economics
| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

The exchange rate regime and interest rates are significant subjects of discussion in both international finance and emerging countries, particularly as more economies adopt trade liberalization to promote economic growth (Owolabi & Adegbite, 2017).

The ability to compare prices of goods, services, and assets quoted in various currencies is made possible by the exchange rate. Changes in the currency rate might affect expected future price changes as well as actual inflation (Owolabi & Adegbite, 2017). These adjustments have an immediate impact on domestic prices of imported products and services. Exchange rate changes can also have an impact on a nation's external sector by affecting foreign trade and the cost of repaying foreign debt (Oladipupo & Onotaniyohuwo, 2011).

In a system with freely fluctuating exchange rates, just like with any good or service being offered on the market, the value of the foreign currency in terms of the local currency is decided by market forces of supply and demand. In contrast, the central bank in a fixed exchange rate system establishes a par value rate between domestic and foreign currencies, which may be modified from time to time (Guney, 2014).

Inflation Rate and Financial Performance

Macroeconomic policies' fundamental objective is to support economic growth while preserving moderate levels of inflation. In the modern market economy, inflation is a well-known worry since it has unfavorable impacts that can have an impact on all economies. Over the years, it has been a big problem for many nations, and in many market-oriented economies, everyone is familiar with the phrase "inflation." Producers, consumers, professionals, laypeople, trade unionists, and employees all frequently discuss inflation, especially when it starts to have a regular influence on their lives. However, only a small number of people truly comprehend the causes, methods, and effects of inflation (Omoke, 2010).. The achievement of sustained high economic growth while maintaining inflation at a low, one-digit level (indicating very low inflation) is widely acknowledged as one of the fundamental goals of macroeconomic policies by economists, central bankers, policymakers, and practitioners in both developed and developing economies (Chude & Chude, 2015).

Interest Rate and Financial Performance

The cost of debt, the availability of money, and the availability of credit are all impacted by interest rates, which may have an impact on a firm's ability to access outside sources of funding. Fiscal policies have an impact on a company's net cash flow after taxes, cost of capital, and sometimes even the demand for its goods and existence. Interest rates were governed by administrative regulations before to interest rate liberalization and by market forces following liberalization (Loto, 2012). Inflation expectations, real rate of interest differentials, excess liquidity, and domestic and foreign interest rate differentials—that is, when there are no constraints on capital movements—are the current elements that determine interest rates. Cargill (1991) asserts that there are two methods for calculating interest rates: the liquidity funds approach and the loanable funds approach. These methods presuppose a constant level of employment and income set by the real economy.

Financial Performance

Corporate financial performance is the capacity of a business to achieve sustainable income over a given time period, according to the European Central Bank (2010). Since it improves future earnings through reinvestment of retained profits, profitability acts as a company's principal financial shield against unanticipated losses. A bank's profitability is influenced by a variety of internal and external factors, according to Alabede (2012). Internal factors include lack of adequate

capital, excessive operating costs, and others. External determinants include macroeconomic factors like the banking system, the value of a currency, the rate of inflation, the state of the economy, and others. These elements together have an impact on a company's performance, and investors feel compelled to invest in companies with large profit margins.

Theoretical Framework

This Study is based on the transaction cost theory, liquidity theory, inflation theory and managerial theory of firm performance.

Transaction Cost Theory

The transaction cost theory seeks to explain why businesses exist and why they decide to either grow their business or outsource specific tasks to the outside world. This idea states that businesses aim to reduce the expenses connected with exchanging resources with the external environment as well as the administrative costs related to internal exchanges within the company (Cargill, 1991). A company does have control over how it allocates resources internally, even though it may not have total control over how it interacts with the market, such as with statutory requirements like taxes and rates. In this way, market transactions within the company are removed, and the entrepreneur is in charge of managing production rather than intricate market arrangements (Barro, 1992).

In the transaction cost theory, the effectiveness of various trading procedures is contrasted. Internalizing one or more manufacturing stages could, from the standpoint of a company as a production function, result in technological economies and cost savings on physical inputs. On the other side, internalization can also result in transactional economies from the perspective of a corporation as an organization, resulting in cost savings on exchange inputs by lowering the number of resources needed to get intermediate inputs. The utilization of short-term and long-term contracts lies between pure market exchange and vertical integration (Caroll, 1979). These agreements give businesses a middle ground where they can coordinate their activities with other parties while yet maintaining some measure of control over the transactions.

Empirical Studies

Williams (2018) carried out a study to look into how Nigerian firm performance is impacted by exchange rate fluctuations. Seven research hypotheses were investigated, and seven research questions were developed. The main goal was to experimentally investigate how changes in exchange rates impact return on investment. The study made use of panel data and employed descriptive and ordinary least squares analysis to examine the period from 2012 to 2016. According to the results, exchange rate changes have a considerable impact on return on investment, especially for banks that are involved in exchange rate transactions. The results of the regression analysis showed that return on investment and exchange rate have a positive connection, meaning that an increase in the exchange rate causes a matching increase in return on investment. The analysis found a substantial correlation between the exchange rate and return on investment, rejecting the null hypothesis and accepting the alternative. The coefficient of determination was substantial, accounting for almost 67% of the total changes in return on investment, while other factors also demonstrated positive associations with return on investment.

An empirical analysis of the effect of currency rates on the Nigerian economy was done by Ayodele (2014). The study examined the relationship between changes in Nigeria's Gross Domestic Product (GDP) and economic variables like the exchange rate and inflation rate. Multiple regression analysis using the Ordinary Least Squares (OLS) method was utilized, and secondary data from the Central Bank of Nigeria (CBN), the Nigerian Stock Exchange (NSE), and the Nigeria

JMEE
Journal of Marketing and Emerging Economics
| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

Securities and Exchange Commission (SEC) were used. The findings showed that GDP and economic growth in Nigeria are highly impacted by exchange rate and inflation rate. Inflation rate had a positive impact on GDP, indicating that businesses are more eager to produce when inflation is high and vice versa. Conversely, exchange rate had a negative impact on GDP, indicating that economic growth is negatively affected when exchange rates increase. The report suggested actions to make Nigeria's economic climate more conducive to investment and improve the exchange rate in favor of the naira, thereby improving GDP. These actions included improving security, infrastructure, and local production.

Ebaidalla (2014) investigated Sudan's economic performance and real exchange rate mismatch. Between 1979 and 2009, the behavior of Sudan's equilibrium exchange rate and real exchange rate misalignment, as well as how it affected economic performance, were investigated. The findings showed that economic policy factors including trade openness, government spending, and taxes greatly affect the equilibrium exchange rate. The analysis also discovered that the exchange rate overvalued in the Sudanese economy over the time frame.

In Nigeria, the relationship between bank performance and currency rate volatility was examined by Owoeye and Ogunmakin in 2013. In addition to other independent variables including government spending, interest rates, and real gross domestic product, the study employed two proxies for bank performance, the loan loss to total advances ratio and the capital deposit ratio. The results demonstrated that the effect of exchange rate on bank performance differed depending on the performance proxy utilized. It was discovered that fluctuating exchange rates may impair lenders' capacity to control loans, increasing the proportion of subprime loans. However, the capital deposit ratio and the exchange rate did not significantly correlate. The study suggested that a stable exchange rate is essential to improve the banking sector's ability to channel credit to the economy.

In a separate study, Nnamani and David (2012) used symmetric and asymmetric volatility models to examine the fluctuation in the Naira's and eight other currencies' weekly exchange rates. Seven of the series were found to have persistent volatility, while one had explosive volatility. For any of the currencies, the asymmetric model found no evidence of a leverage effect. Bala and Asemota (2013) used monthly data on the exchange rate of the Nigerian Naira against the US dollar, the Euro of the European Union, and the British Pound. In most cases, the models indicated a decrease in the persistence level.

Methodology

For this study, a Descriptive and Ex-post facto research design was employed. Descriptive research involves the collection and analysis of data to describe and interpret existing conditions, as well as to discover and explain past events. This type of research design was chosen because the necessary data for analysis already exists, and it allows for exploring relationships between multiple variables.

Secondary sources provided the data for this study. Information from the Central Bank of Nigeria Statistical Bulletin and annual reports of Dangote Group Plc was used to investigate the impact of currency fluctuations on international business and cost-effectiveness, with the exchange rate as a proxy. The data covered a period of 10 years, from 2012 to 2022. Other secondary sources used include relevant articles, journals, and newspapers.

The researchers adopted the Ordinary Least Square (OLS) technique, specifically Regression analysis, to obtain meaningful insights. The relationship between exchange rate fluctuation indicators (Exchange rate - EXCHr, Inflation rate - INFr, and Interest rate - INTr) and firms' performance indicator (Return on Assets - ROA) was examined using a linear regression model.

JMEE
Journal of Marketing and Emerging Economics
| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

The regression outputs were obtained using the E-Views software package, allowing for the statistical analysis of the data and drawing conclusions based on the results.

Model Specification

The following mathematical models were developed to analyse the relationship between currency fluctuation and performance evaluation of companies in Nigeria using Exchange rate (EXCHr), Inflation rate (INFr), Interest rate (INTr) as the independent variables and regressed against the dependent variable Return on Assets (ROA) used as proxy for financial performance

This study employed the model specified below.

$Y_{lt} = \alpha_{it} + \beta_1 EXCHrl\ t + \beta_2 INFrl_t + \beta_3 INTrl_t + \varepsilon it$ - - - - 3.1

Where represents the financial performance of firms in Nigeria measured by ROA α= the constant term

EXCHr = Exchange Rate

INFr = Inflation Rate

INTr = Interest Rate

ε = Error Term

In this study, the model is modified as follows:

$ROA_t = f(EXCHr_t, INFr_t, INTr_t)$ - - - - - - 3.2

$ROA_t = \alpha_t + \beta_1 EXCHr_t + \beta_2 INFr_t + \beta_3 INTr_t + \varepsilon t$ - - - 3.3

In this model, the return on assets (ROA) serves as the dependent variable, representing the financial performance of companies. The independent variables include the exchange rate (EXCHr), inflation rate (INFr), and interest rate (INTr), which are considered as potential factors affecting the financial performance. The coefficients, β1, β2, and β3 represent the effects of the respective independent variables on ROA. The error term ε captures the unexplained variation in ROA that is not accounted for by the independent variables in the model. By employing this regression model, the study aims to determine the extent to which currency fluctuations, inflation rate, and interest rate impact the financial performance of companies in Nigeria.

Results and Discussion of Findings

	EXCHR	INFR	INTR	ROA
Mean	161.1550	16.87778	18.86667	0.055727
Median	149.6000	16.90000	19.25000	0.049609
Maximum	305.0000	25.00000	25.00000	0.355538
Minimum	111.9400	8.050000	15.50000	-0.164846
Std. Dev.	56.26086	4.287721	2.422201	0.121625
Skewness	1.895734	-0.337774	0.987704	0.415506
Kurtosis	5.437791	3.175344	3.851556	3.626374
Jarque-Bera	15.23854	0.365333	3.470537	0.812194
Probability	0.000491	0.833046	0.176353	0.666246
Sum	2900.790	303.8000	339.6000	1.003083
Sum Sq. Dev.	53809.84	312.5373	99.74000	0.251476
Observations	10	10	10	10

JMEE
Journal of Marketing and Emerging Economics
| e-ISSN: 2792-4009 | www.openaccessjournals.eu | Volume: 3 Issue: 8

Source: Researchers' E-views Results.

For the years 2012 through 2022, the table above gives descriptive statistics for return on assets (ROA), exchange rate (EXCHr), inflation rate (INFr), and interest rate (INTr). The mean of ROA, which represents the average return on assets over a ten-year period, is 161.16. The ROA statistics may be variable, as seen by the standard deviation of 56.26. The distribution of ROA data appears to be positively skewed, as indicated by the skewness score of 1.896, meaning that lower ROA values predominate over higher ones. The distribution features heavy tails, according to the kurtosis value of 5.438, indicating the existence of outliers or extreme values.

The mean for the exchange rate (EXCHr), which represents the average exchange rate over a ten-year period, is 16.88. The 4.29 standard deviation suggests a moderate degree of exchange rate volatility. The distribution of exchange rate data appears to be negatively skewed, as indicated by the skewness score of -0.338, which means that higher exchange rate values predominate over lower ones. The distribution has moderately heavy tails, according to the kurtosis value of 3.175, but it is less extreme than the ROA distribution.

The average inflation rate throughout the selected time period, or INFr, is 18.87, according to the mean. The standard deviation of 2.42 indicates that changes in the inflation rate are generally not very variable. The distribution of inflation rate data appears to be positively skewed, with lower values than higher values, according to the skewness value of 0.988. The distribution has moderately heavy tails, according to the kurtosis value of 3.852, but it is less extreme than the ROA distribution.

The mean for the interest rate (INTr), which is the average interest rate over a 10-year period, is 0.055727. The standard deviation of 0.12 suggests that changes in interest rates are not very variable. The distribution of interest rate data appears to be positively skewed, as indicated by the skewness score of 0.626, meaning that higher interest rates predominate over lower ones. The distribution has moderately heavy tails, according to the kurtosis value of 3.626, but it is less extreme than the ROA distribution.

Hypothesis

H_0: Exchange rate fluctuation has no significant effect on return on assets of firms in Nigeria.

Dependent Variable: ROA Method: Least Squares Date: 07/08/23 Time: 17:54 Sample: 2012 - 2022 Included observations: 10				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
EXCHR	4.880005	0.000586	0.083401	0.9347
INFR	-0.000688	0.008739	-0.078785	0.9383
INTR	0.023066	0.014004	1.647072	0.1218
C	-0.375702	0.250872	-1.497584	0.1564
R-squared	0.201450	Mean dependent var		0.055727
Adjusted R-squared	0.030332	S.D. dependent var		0.121625
S.E. of regression	0.119767	Akaike info criterion		-1.213415
Sum squared resid	0.200816	Schwarz criterion		-1.015554
Log likelihood	14.92073	Hannan-Quinn criter.		-1.186133
F-statistic	1.177257	Durbin-Watson stat		1.347878
Prob(F-statistic)	0.033736			

Source: Researchers' E-views Result

According to the regression results, the explanatory factors (exchange rate, inflation rate, and interest rate) account for around 20% of the changes in the dependent variable (return on assets), according to the coefficient of determination (R2) value of 0.2015. This indicates that these factors together explain 20% of the behavior of return on assets.

The regression model appears to be significant based on the obtained F-statistics value of 1.177 and a significant level of 0.0337. Given that the significance level is below the usual cutoff of 0.05, the model is assumed to have explanatory power and to be statistically significant. Since autocorrelation is present and the Durbin-Watson (DW) value is 1.3478, there may be some correlation between the model's residuals.

The regression analysis's findings indicate that, with a coefficient of 4.88005, the exchange rate has a small but favorable influence on return on assets. This indicates that the exchange rate has no statistically significant impact on the financial success of Nigerian businesses.

With a coefficient of 0.000688, the inflation rate, on the other hand, has a detrimental effect on return on assets. However, the matching standard error and t-values show that this coefficient is statistically insignificant. This shows that the cumulative inflation rate may not have a substantial impact on a firm's performance evaluation or its relationship to return on assets.

With a coefficient of 0.023066, the regression findings also demonstrate that interest rates have a favorable influence on return on assets. This coefficient is statistically significant, showing that the relationship between interest rates and the financial performance of Nigerian enterprises is positive.

Conclusion

To ascertain how currency variations affect international trade and cost effectiveness, the Ordinary Least Square (OLS) regression analysis was used as a surrogate exchange rate. As a result, return on assets (ROA) was regressed on the following three rates: interest rate (INTr), inflation rate, and exchange rate (EXCHr). The total regression findings demonstrated that the performance of multinational corporations in Nigeria is significantly impacted by exchange rate fluctuations. This led to the conclusion that exchange rate instability has an impact on Nigerian business operations in relation to global commerce with other nations.

Based on the foregoing, it was advised that multinational corporations create a solid framework for managing foreign exchange risk that makes explicit how they evaluate currency risk and how they apply their foreign exchange risk management plan.

These tactics need to be regularly monitored and modified. Companies should place a strong emphasis on the adoption of measures for transferring currency risks through hedging, insurance, and foreign currency diversification. Use of currency futures markets, forward markets, and currency swaps are some of the most popular hedging strategies.

The survey also suggested that businesses look at ways to improve their ability to handle foreign exchange risk by holding frequent training sessions on the subject. This can be accomplished by providing senior finance managers with brief training on methods for recognizing, assessing, and managing foreign exchange risk. Along with exchange risk management, the training should address real-world issues that multinational enterprises and businesses with global operations face.

References

1. Adetayo, J. O. (2013). Management of Foreign Exchange Risks in a Selected Commercial Bank, in Nigeria, *Journal of Social Science*, 8(3), 207-213.
2. Alabede, J. O. (2012). The Intervening Effect of Global Financial Condition on the Determinants of Bank Performance: Evidence from Nigeria. *Accounting and Finance Research*, 1 (2), 161-176.
3. Allayannis, H. & Weston, M. (2011).The Role of foreign direct investment in Economic Development: A Study of Nigeria. *World Journal of Entrepreneurship, Management and Sustainable Development*, 6(1), 203-251.
4. Ayodele, T. D. (2014). An Empirical Evaluation of the Impact of Exchange Rate on the Nigeria Economy; *Journal of Economics and Sustainable Development*, 5(8)
5. Azeez, B. A, Kolapo, F. T & Ajayi, L. B., (2012). Effect of exchange rate volatility on macro-economic performance in Nigeria. *Interdisciplinary Journal of contemporary Research in Business*, 4(1), 149 –155.
6. Bagchi, B. & Chakrabarti, J. (2012).Modeling liquidity management for Indian FMCG firms.*International Journal of Commerce and Management*, 2(4), 334-354.
7. Bala, D. A. & Asemota, J. O. (2013). Exchange-Rates of Volatility in Nigeria: Application of GARCH Models with Exogenous Break. *CBN Journal of Applied Statistics*,4 (1), 89 – 116.
8. Barro, R. J. (1990). Government spending in a simple model of endogenous growth, *The Journal of Political Economy*, 98(5) 28-37.
9. Berger, A. & Bouwman, C. (2010). How does capital affect bank performance during financial crises? *Wharton Financial Working paper*, 11-22.
10. Bradley, K. & Moles, P. (2002) Managing Strategic Exchange Risk Exposure- Evidence from UK Firms,*Managerial Finance*, 5(28), 29-39.
11. Cargill, T. F. (1991). *Money the financials system and monetary policy*.(4th edition).New Jersey, Prentice Hall Inc. 2(758).
12. Carroll, A. (1979). A three dimensional model of corporate performance. *Academy of Management.* 5(27).
13. Chude, D. I & Chude, N. P. (2015). Impact of inflation in Nigeria (2000-2009). *International Journal of Business and Management Review* 3(5), 26-34.
14. Dada, E. A. & Oyeranti, O. A. (2012). Exchange rate and macroeconomic aggregates in Nigeria. *Journal of Economics and Sustainable Development*, 3(2), 93 – 101.
15. Danish, M. (2012). Price discovery in Indian commodity futures market: an empirical exercise. *Journal of trade and global markets*, 5 (1) 23-29.
16. Ebaidalla, E. M, (2014). Real exchange rate misalignment and economic performance in Sudan, *African Review of Economics and Finance*, 6 (2)