



## EXCHANGE RATE FLUCTUATIONS AND FIRM'S SURVIVAL: IS EXCHANGE RATE FLUCTUATION GOOD FOR A GROWING ECONOMY LIKE NIGERIA?

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Submitted: 09 May 2023

Revised: 22 June 2023

Accepted: 28 June 2023

Peer-review under responsibility of 8th ASIA International Conference (KLCC, Malaysia) Scientific Committee

<http://connectingasia.org/scientific-committee/>

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## ABSTRACT

The volatility of exchange rates has presented a persistent challenge for developing countries, particularly in the sub-Saharan African region. The purpose of this research is to analyse how changes in the exchange rate have affected the ability of Nigeria's manufacturing sector to contribute to the country's GDP. This study used a retrospective Ex Post Facto research strategy with time series data. The analysis relied on secondary data collected from the statistics bulletin of the Central Bank of Nigeria and the Annual Abstract of the National Bureau of Statistics, both of which cover the time period of 1990 through 2020. The impact of variations in the exchange rate on the long-term viability of a company was analysed by employing ordinary least squares estimate and a regression analysis. The research shows that rising exchange rates are significantly related to increased output. Furthermore, the data show that interest rates, trade openness, and exchange rates are statistically significant at the 5% level, whereas inflation is not. These findings indicate that exchange rate fluctuations are detrimental to the growth of an economy like Nigeria. Based on these research findings, the study recommends the implementation of effective monetary policies to ensure a realistic exchange rate, thereby enhancing the performance of the manufacturing sector in Nigeria.

**Keywords:** *Firm Survival*; Production Growth; Trade Openness; Market Rates; Interest Rate; Manufacturing Contribution

## RESEARCH HIGHLIGHTS

The expected initial analysis to be conducted in a time series analysis is the assessment of stationarity, hence, this was the first test carried out and the findings indicate that all variables exhibit stationarity after taking the first difference. In terms of economic theory, the signs of the coefficient of the variables are relevant. According to economic theory, there is a positive relationship between the exchange rate and production. Consequently, the results align with this expectation, suggesting that the exchange rate meets the a priori expectation. The results indicate that a one percent appreciation in the exchange rate leads to an increase in manufacturing contribution to GDP. Furthermore, the findings reveal that the interest rate, exchange rate and trade openness showed a positive significant relation at a 5 percent significance level, while inflation does not demonstrate statistical significance. This implies that the trade openness, interest rate, and exchange rate has an impact on growth in Nigeria's production during period examined.

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## Research Objectives

In Nigeria, a country heavily reliant on external factors, the exchange rate has emerged as a prominent and widely discussed topic since gaining independence. Unsurprisingly, this subject has attracted considerable attention within the Nigerian manufacturing sector. The central focus is to evaluate the fiscal consequences of fluctuations in exchange rate on the survival of Nigerian manufacturing firms, with a view to the sectors contribution to the country's gross domestic product as a measure of their viability. The impact of exchange rate fluctuations on the profitability of Nigerian manufacturing companies is a cause for concern, particularly during periods of macroeconomic instability and

globalization. Trade liberalization and the unrestricted movement of goods across borders have led to a decline in profit margins for manufacturing companies (Silvente & Walker, 2005). By analyzing Nigeria's exchange rate policy, examining its practical implementation, exploring conflicting viewpoints on its effectiveness, and considering both local and international evidence on its impact on regional economic development, this study contributes new and distinctive insights to the existing scholarly literature within the study context. The study findings portends theoretical, practical and social benefits for various stakeholders, including the government, industries, professional associations, researchers, and the general public. It will enable the government to become aware of the challenges caused by fluctuating exchange rates and provide insights on how to adjust policies to support economic growth in Nigeria. Policy makers and stakeholders responsible for formulating and evaluating economic policies will also find this study valuable.

## Methodology

In most developing economies, especially in Africa, particularly sub-saharan Africa, the growth of manufacturing output is significantly influenced by external factors, including the exchange rate of the domestic currency in relation to other currencies, inflation, interest rates, trade openness, and various other factors. In this study, we assessed manufacturing output growth by examining its annual contribution to the gross domestic product. The focus of our investigation was Nigeria, where the actual gross domestic product does not align with global expectations. We collected yearly data from the statistical bulletin of the Central Bank of Nigeria, spanning the period from 1990 to 2020. To analyze the relationship between these variables, we employed a time series method. This choice was made because the ordinary least squares method is suitable for this study, as it aims to avoid any potential biases. Additionally, we incorporated an econometric approach in our analysis.

### The Model

If we assume a linear correlation, our model equation looks like this:

$$\text{Ln MGDP} = \beta_0 + \beta_1 \text{Ln EXCH}_t + \beta_2 \text{Ln INTR}_t + \beta_3 \text{Ln INFL}_t + \beta_4 \text{Ln TOPN}_t + \text{et.}$$

In this context, EXCH = Exchange Rate; MGDP = Manufacturing Gross Domestic Product used as a proxy for Manufacturing output Growth/business survival; INTR = Interest Rate; INFL = Inflation; TOPN = Trade Openness

Also; Ln = Elasticity,  $\beta_0$ , = Constants, and  $\beta_i$  ( $i = 1, 2, \dots, 5$ ) = the parameters to be estimated.

## Results

The earliest pre-estimation check in any stage of series investigation comprises the stationarity assessment, which demonstrates that every parameter are stationary at the first variance. The economic theory argument pertains to the signs of the coefficient of the variables under examination. In this study, the primary policy variable investigated is

the exchange rate. According to economic theory, production and changes in the rates are linked directly. The results of the study confirm this a priori expectation, indicating that the exchange rate aligns with the theoretical assumption. Specifically, a one percent appreciation in the exchange rate corresponds to the manufacturing sector's share of GDP growth. Regarding the interest rate variable, the findings demonstrate a significant relationship. In line with economic theory, higher interest rates are associated with lower production growth, assuming other factors remain constant. Therefore, the results align with the expected economic theory prediction. On the other hand, the variable of inflation did not yield favorable results. This outcome contradicts the economic theory argument, as high inflation rates discourage investment. Lastly, with regards to the degree of trade openness, the results did not meet the anticipated expectation. The observed negative relationship contradicts the economic theory argument, which posits a positive relationship between trade openness and production. In summary, while the results generally align with economic theory for variables such as the exchange rate and interest rate, there are discrepancies in the findings related to inflation and trade openness.

## Findings

From a theoretical perspective, the exchange rate exhibits the expected sign. A more favourable exchange rate encourages imports of commodities and solutions, which in turn boosts economic growth. This rise in production output subsequently boosts the manufacturing sector's influence to the gross domestic product (GDP), resulting in faster economic growth. The study reveals a significant influence in the link that indicate the relation that exist with growth in production and the exchange rate in the country. The outcome from the very study is in line with previous studies conducted by Orji et al. (2018), Osho and Efuntade (2019), and Akinmulegun and Falana (2018), which their research indicates the influence of depreciation of the Nigerian currency (naira) on associated slower production growth. According to these analyses, changes in the value of the naira to other currencies have a significant impact on Nigeria's manufacturing sector's output. In particular, their analysis assessed the shared relation between the exchange rate and industrial output in Nigeria and found that it was beneficial and statistically significant. The findings of this study are also consistent with the research conducted by Ayobami (2019), which also argues that fluctuations in the rates have a significantly direct impact on the manufacturing firm's performance, as well as the study by Abdu et al. (2021), which identified a significant positive effect of the exchange rate on economic growth.

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