INTERNATIONAL REVIEW OF FINANCIAL STUDIES | IROFS
Vol 2, Issue 4; August, 2025 / visit: https://journals.unizik.edu.ng/irofs

MACRO ECONOMIC INDICATORS AND BUSINESS SUSTAINABILITY OF LISTED MANUFACTURING FIRMS IN NIGERIA

Vincent Ayeole Aderobaki[1] Enyichukwu Miracle Isaiah[2]
[1&2]Department of Accountancy, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.
Emails: *av.aderobaki@unizik.edu.ng[1] emn.isaiah@stu.unizik.edu.ng[2]*
All correspondence to: av.aderobaki@unizik.edu.ng

ABSTRACT
This study examined the effect of macroeconomic indicators on business sustainability of listed manufacturing firms in Nigeria from 2015 to 2024, using return on asset (ROA) of selected industrial and healthcare manufacturing companies as proxy for business sustainability while exchange rate and inflation rate were used as proxies for macro-economic indicators. The study utilized an ex-post facto research design. Time series data were sourced from the Central Bank of Nigeria (CBN) statistical bulletin and annual audited report of the sampled companies. The population of the study consists of all the 20 industrial goods and healthcare manufacturing firms listed on the Nigerian Exchange Group floor as of 31st December 2024, while 13 companies were selected as sample size using purposeful sampling techniques. Ordinary Least Square Regression Analysis was applied in hypotheses testing with the aid of SPSS version 20.0. The findings revealed that exchange rate (EXGR) and inflation rate (INFR) have no significant effect on the return on asset of selected manufacturing firms in Nigeria. It was concluded that, macroeconomic policy has insignificant and negative effects on the business sustainability of industrial goods and healthcare manufacturing companies in Nigeria. Based on the above findings, the study recommends that the government should ensure that the Naira keeps on appreciating against the dollar by ensuring that the Nigerian products become more attractive to the outside world, lowering the exchange rate will impact the manufacturing sector positively, as it will help the sector easily import plants and machinery to support production, the regulatory authorities including the Central Bank of Nigeria should find ways of having stable prices even in moments of crises or economy shocks to shield both the consumers and producers effectively and manufacturers should monitor local and global inflation.

Key words: *Business Sustainability, Exchange Rate, Inflation Rate.*

CITE AS: Aderobaki, V.A. & Enyichukwu, M.I. (2025). Macro economic indicators and business sustainability of listed manufacturing firms in Nigeria, *International Review of Financial Studies*, 2(4), 206 - 222. Available: https://journals.unizik.edu.ng/irofs

INTRODUCTION

Maintenance of price stability continues to be an overriding objective of monetary policy for most countries in the world today. The emphasis given to price stability in conduct of monetary policy is with a view to promoting sustainable business growth and development as well as strengthening the purchasing power of the domestic currency amongst others. The Central Bank of Nigeria (CBN) employs the monetary targeting framework in the conduct of its monetary policy to curb the effects of inflation and exchange rates.

Inflation refers to persistent rising prices of goods and services. Fatukasi (2012) pointed out that upsurge inflationary rates often lead to major economic distortions such as balance of payment deficit, devaluation of naira, and reduction in purchasing power of the working class which makes the workers unions embark on frequent agitations/strikes for higher wages. In Nigeria, high inflation has been one of the major challenges facing the nation's economy. The inability of the government to offer a lasting solution to this problem indicates the inevitability of inflation in the economy; hence, it shows that government lacks the power to eliminate the persistent rising prices of goods and services in the domestic economy (Taiwo, 2011). Inflation in Nigeria can be traced to 1960s, though not prevalent then. Scholars have argued that during an inflationary period, domestic currency finds it difficult to act as medium of exchange and a store of value without adversely affecting output level, income distribution and employment level of the country (CBN, 2019). Inflation leads to an increase in interest rate, currency depreciation and a rise in the foreign exchange rate. This is obviously the case of Naira as it has depreciated overtime against US dollar and other major foreign currencies.

Inflation in Nigeria has been on a steady rise since year 2020, battling with persistent increase in prices of goods and services, aggravated by insecurity, naira depreciation and supply chain disruption caused by the COVID-19 pandemic and Russian - Ukraine war. Latest figures from the National Bureau of Statistics (NBS, 2024) showed that the Consumer Price Index (CPI) which measures the rate of change in prices of goods and commodities rose to 25.35%, in the year 2024, up from 19.36% recorded during the same period in 2023, 20.52% in year 2022 and 11.39% in 2019, indicating 168 basis points increase. This trend aggravated in 2024 as average annual inflation rose further by 171 basis points to 33.24% in the year 2024. The latest inflation figure was the highest inflation rate the country has recorded in 20 years. The severity of this trend is reflected in the increased cost of producing consumer, industrial and pharmaceutical goods, which are mostly essential commodities used regularly by consumers. These include packaged food, toiletries, beverages, stationery, over-the-counter medicines, cleaning and laundry products, plastic goods, and personal care products. According to the CPI report (2024), food inflation stood at 40.87% on a year-on-year basis, which was 93.10 per cent higher than 20.30% in the year 2022. The surge in prices is because of rising energy (diesel) costs caused by the ongoing Russian-Ukraine crisis. The surge in inflation rate led to the recent hike in Monetary Policy Rate (MPR) by the Central Bank of Nigeria's Monetary Policy Committee to 15.5% from 13.5%, the highest hike since year 2016. In South Africa the policy rate has raised by 175 basis points since the end of 2021 to 5.50% while Egypt has increased its rate by 300 bps so far to 11.75% as well as Kenya which raised its policy rate by

50 basis points to 7.50%. "This will exacerbate the intensity of idle capital assets, worsen the already declining profit margin of private businesses and heighten the mortality rate of small businesses" (Ajayi-Kadir, 2022).

Nigeria's manufacturing industry is strongly dependent on imported input elements, which requires careful study of the currency rate framework that governs import and export activities. The fluctuation and instability of currency exchange rates have become significant issues in Nigeria, as both economies strive to uphold a steady exchange rate with their trading counterparts. The exchange rate had a significant surge, rising from 1 USD = 300 NGN to above 1 USD = 1700 NGN on average as of 2024. Additionally, the Central Bank of Nigeria (CBN) revised its money supply growth projection for 2023 from 18.5 percent to 26.75 percent in 2024, as stated in the CBN statement of the 296th meeting in April 2024. The currency rate is a crucial factor that affects both Nigerian industrial activity and worldwide commerce. It has received much attention in discussions about national and international imbalances.

Business sustainability is the measure of how well a firm can use its assets from its primary business to generate revenues and remain in business. It can be measured by variables which involve productivity, profitability, growth or even customers' satisfaction. Maximization of profit is a very crucial objective for a firm to remain in business and to withstand competition from firms operating in a similar industry. It is a major pre-requisite for long-term survival and success of a firm while it is a key pre-condition for the achievement of other financial goals of a business entity (Gitman & Zutter, 2012). Profitability is a core measure of business sustainability, and it constitutes an essential aspect of its financial reporting. It reveals the firm's ability and capacity to generate earnings at a rate of sales, level of assets and stock of capital in a specific period (Margaretha & Supartika, 2016). The continued increase in the general prices of goods and services; coupled with the recent hike in the key interest rate and fluctuation in exchange rates could dent the sustainability of businesses in Nigeria. As at the fourth quarter of 2024, Africa's biggest economy recorded an all-time average inflation rate of 33.24%, which raised its monetary policy rate by 150 basis points to 26.75% which is intensified removal of fuel subsidies measures, according to the National Bureau of Statistics (NBS).

Objectives

This study seeks to examine the effect of inflation and exchange rate on business sustainability of listed manufacturing firms in Nigeria.. The specific objective is to:

1. examine the effect of exchange rate on f business sustainability of listed manufacturing firms in Nigeria.
2. determine the effect of inflation rate on business sustainability of listed manufacturing firms in Nigeria.

This study sought to examine the effect of macroeconomic indicators on the business sustainability of listed manufacturing firms in Nigeria. The specific macroeconomic factors of this study were exchange rate and inflation rate and their effects on return on Assets (ROA) of listed industrial goods and healthcare manufacturing firms. The study covers a period of ten years (10) between 2015 and 2024. The choice of ten years is because the study examined the macroeconomic indicators on the business sustainability in the period of economic meltdown in 2015, pre and post COVID 19 pandemic era in 2020 and fuel subsidy remover in 2023, thereby offering a nuanced and up to-date evaluation of the prevailing economic conditions in Nigeria. The economic factors in the global markets are witnessing an active rise and fall (fluctuations) and considering the instability of the economic factors due to political reasons, wars, pandemic and government policy that are plaguing the economies of the world, including the Nigerian economy. This study will be of benefit to the Policy makers, specifically the government and the central bank, who are expected to formulate better policies after insights given by this study. Given that the variables being discussed are directly under them, they are expected to control them effectively and efficiently for the development of the economy through the manufacturing sector.

LITERATURE REVIEW

Exchange Rate

The exchange rate is simply the value of a country's currency in relation to another country in the open market or between traders. The exchange rate is a key determinant of economic performance because a weaker currency indicates that more of the currency will be used to purchase another currency or to pay for transactions in the open market. For individual firms, it determines the amount of money one firm will exchange for another during business transactions. Normally, firms expect the economic team to formulate policies that take into consideration the economic situation to control the exchange rate to not excessively affect the costs of imported inputs Kirui, Wawire & Perez (2014). The two exchange rates are fixed and

floating rates. The Central Bank of Nigeria controls the official rate, while the floating exchange rate is controlled by the black market or the forces of demand and supply of forex.

Firms typically rely on monetary authorities to implement well-designed policies that stabilize exchange rates, thereby mitigating the risk of escalating costs associated with foreign inputs such as goods, services, or equipment. The appreciation of the Naira, for instance, is a favorable development, as it reduces the number of Naira units required to acquire foreign currencies like the U.S. dollar or British pound. When the domestic currency strengthens, the cost of importing foreign materials or components decreases, thereby enhancing the ability of businesses, especially those with constrained financial resources to manage foreign exchange risks. This risk mitigation is particularly crucial for local firms reliant on imported goods, services, materials, or machinery to maintain their operational continuity (Kuwornu, 2012).

Manufacturing firms smile at the market when the naira is appreciating against the dollar or the pound, which are dominant currencies in the international market. The appreciation of the naira is more advantageous to local firms since some firms lack strategies and the financial capacity to manage macroeconomic risks Kuwornu (2012). However, an increase in foreign currencies indicates that more of the naira will be used for transactions in the international markets resulting in an increase in the price input to output. The effect of economic variables from the standpoint of a macroeconomic view assumed that a rise in the exchange rate against another currency would negatively impact economic health Obura & Anyango, (2016). Based on the purchasing power parity theory, the assumption is that increase in the exchange rate between two countries should offset the inflation rate differential. However, in practice, the volatility of the exchange rate will be so high that this assumption will not work, thereby adding more tasks on managers to plan the best means to hedge some foreign currency transactions to either make payment for payable or collect receivables.

H_{01}: *Exchange rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria.*

Inflation Rate

Inflation is one of the most frequently used terms in economic discussions, yet the concept is variously misconstrued. There are various schools of thought on inflation, but there is a consensus among economists that inflation is a continuous rise in the prices. Inflation is the persistent increase in the general price level within the economy which affects the value of the domestic currency (Fatukasi, 2012). It is not a once and for all an upward price movement but must be sustained over time and affect all goods and services within the economy.

Inflation is frequently described as a state where "too much money is chasing too few goods". When there is inflation, the currency loses purchasing power. According to Awogbemi and Taiwo (2012), persistent rise in the price level of goods and services are the most serious challenges facing every economic unit. In view of this, every nation strives to achieve price stability as the main factor that is required to promote economic growth and development of a nation. Inflation affects profits by reacting to sales volume, through influencing the level of costs and by changing the relationship between cost and prices. Since companies generally determine prices by reference to cost, pricing policy becomes particularly important in inflation and the level of profits differs according to whether prices are determined on basis of original cost or current replacement cost (Henning Weber, 2012).

According to Rohit (2022), inflation is the number one concern of business owners, according to a recent survey conducted by the U.S. Chamber of Commerce. To cope with inflation, 67% of businesses have raised prices, according to the study report 41% decreased staff or taken out a loan in the past year (39%) in response to growing inflation pressures. Having survived the pandemic, now business owners are being hit with surging inflation. It limits their purchasing power and forces small businesses to raise their own prices and absorb higher costs within already thin margins, putting a strain on even profitable businesses. When inflation is on the news, it's often coupled with confusion and speculation. Everyone understands that inflation means rising prices. However, that is where the clarity about inflation usually ends. While those "rising prices" are a national average, the way inflation affects an individual business depends on its unique economic circumstances. As a result, generalized inflation advice for businesses can seem confusing and contradictory. But knowing how to really prepare and adapt your business to inflationary trends can be a boon. The simple concept of demand and supply is the core starting point for all inflation effects on businesses, no matter how far out the effects ripple or how complex they become (Rohit, 2022). At the highest level, this means that if the supply of money in an economy is too high relative to the amount of goods and services available for sale, prices will rise. For instance, prices of some goods and services rise faster than others while some may even remain unchanged. The poor and the middle classes suffer because their wages and salaries are fixed, but the prices of commodities continue to rise.

H_{02}: *Inflation rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria.*

Business Sustainability

Maximization of profit is a very crucial objective for a firm to remain in business and to withstand competition from firms operating in a similar industry. It is a major pre-requisite for long-term survival and success of a firm while it is a key pre-condition for the achievement of other financial goals of a business entity (Gitman & Zutter, 2012). Profitability is a core measure of the sustainability of a firm, and it constitutes an essential aspect of its financial reporting. It reveals the firm's ability and capacity to generate earnings at a rate of sales, level of assets and stock of capital in a specific period (Margaretha & Supartika, 2016). The fundamental measure of profitability and business sustainability is the Return on assets (ROA). This term means different things to different people (often depending on perspective and what is being judged) so it's important to clarify understanding, if interpretation has serious implications. Many business managers and owners use the term in general sense as a means of assessing the merit of an investment or business decision. Returns generally means profit before tax but clarify this with the person using term-profit depends on various circumstances, not the least accounting convections are used in the business. In this sense most Chief Executive Officer's and business owners regard ROA as the ultimate measure of any business sustainability or any business proposition, after all it's what most business is aimed at producing – maximum return on assets, otherwise you might as well put your money in a bank saving account. Strictly speaking, return on assets is defined as: Profit derived as a proportion of and directly attributable to cost or book value of an asset, liability or activity, net of depreciation. Higher ROA also reflects the company's effective use of its assets in serving the economic interests of its shareholders (Ibrahim & AbdulSamad, 2011).

Exchange Rate, Inflation Rate and Business Sustainability

The investigation into the existence and nature of the link between inflation, exchange and business sustainability (profitability) has been conducted for a long period of time. Although nowadays most economists accept that inflation has a negative effect on company's profitability, but some of the researchers did not detect this effect in their data during their research. According to Yaniv Konchitchki (2011), although the effects of inflation are not recognized in the nominal financial statements, such effects will have economic consequences, even during a period in which inflation is relatively low. According to World Bank, the explanation of inflation is a measurable value at which the average value level set of the same products and includes the services in a country change at a definite time. It is simple when prices rise, and goods such as fuel or computers rise in price these are not inflation because inflation refers to the average price level of all products. Economists use

national levels, the index of all prices in an economy, to measure inflation called the CPI (World Bank Group, 2022). No doubt, many countries across the world are grappling with galloping inflation, driven primarily by higher food and energy prices. The important thing to understand is that inflation and exchange rates do not impact on all businesses equally. There are businesses in certain markets or industries that are benefiting greatly from the increased demand. Companies with pricing power or low commodity inputs that can pass costs on will retain higher profits, offsetting some or all the effect of lower valuation multiples.

Theoretical Review

This study is anchored on Purchasing Power Parity (PPP) theory which was propound by Gustav Cassel in 1916. The theory explained the rationale for the disparity between the exchange rate of one country and another. PPP is power of money expressed by the quantity of goods and services that one can purchase. The exchange rate between countries determines the strength of currency to another in terms of purchasing power. Gustav assumption is that price adjustment of goods and services over a given period influences many factors in an economy. When this occurs, firms spend more because of the rise in inflation and interest rates due to price differential also affect the exchange rate. The price difference is a function that determines the exchange rate, and the weaker currency will always suffer setbacks because more values are used in the open market for transactions. A practical situation is the current price of the dollar and Naira in which one-dollar worth 1700 Naira. The rise in the price of commodities is primarily caused by inflation, which is a result of PPP between currencies. As such, the theory could be called inflationary theory because when the prices of items skyrocket, the effect results in a change in the development exchange rate. The exchange rate also results in a price increase considering the situations for decades whereby Naira hardly appreciates, rather the depreciation of Naira continues to cause a big gap between the two currencies which is commonly used for international transactions. According to Coakley Jerry, Robert Flood, Ana-maria (2004) local currencies ought to have the capacity to procure some goods or services competitively if the country monetary authority has a good policy that keeps the currency in the open market competitive. The strength of the exchange rate is a function of structure in an economic, because a good system with clear policies will always work together by ensuring that all the components work together to achieve common goals.

Empirical Review

Alalade, Idowu, Akande, Oliyide and Adebola (2024), examines the impact of key macroeconomic variables on the profitability of consumer goods manufacturing firms in

Nigeria. Utilizing an ex post facto research design, the study analyzed secondary data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin and the financial reports of twelve listed consumer goods manufacturing firms over the period from 2006 to 2022. The data was subjected to analysis using a random effects panel regression model. The results reveal that inflation exerts a statistically significant positive effect on Return on Assets (ROA) and Return on Equity (ROE) while its effect on Return on Capital Employed (ROCE) and Earnings per Share (EPS) is not significant.

Sharif (2023) examines the impact of macroeconomic variables (economic growth, public debt growth, inflation, foreign direct investment, and balance of payments) on the performance of Islamic banks (return on assets, return on equity, and return on equity). The study used multiple linear regression analyses of periodic data for Jordanian Islamic banks in Jordan during the period (2007-2021). The findings demonstrated a positive correlation between macroeconomic factors and performance, except for foreign direct investments, which have a negative effect on performance because they require the use of external financial resources.

Romanus, James and Esther (2024), examines the effect of macroeconomic variables on the financial performance of quoted consumer goods manufacturing firms in Nigeria, with a particular focus on the relationship between the dependent variable, return on assets (ROA), and the independent variables exchange rate, money supply, and interest rate. Utilizing an ex post facto research design, the study adopts a cross-sectional time-series approach through panel data covering 2013 to 2022. The study's findings reveal that the exchange rate holds a statistically significant negative impact, money supply exhibits an insignificant positive effect, and the interest rate demonstrates a significant negative influence on the financial performance of quoted consumer goods manufacturing firms in Nigeria.

Oladipo, Ado, Alesinloye, and Yusuf (2024), investigates the impact of selected macroeconomic variables on economic growth in Nigeria using quarterly data spanning from 2000Q1 to 2022Q3. The variables under scrutiny nominal GDP growth (as a proxy for economic growth), exchange rate (EXR), inflation rate (INF), and interest rate (INT) demonstrate distinct relationships established through rigorous statistical analysis. Findings reveal that while inflation and interest rates seemingly bolster economic growth in theory, their impact remains statistically insignificant in both the short and long runs. Conversely, exchange rate fluctuations exhibit a significant negative impact on economic growth in both periods.

Idaka Ajuh and Edith (2021), analyzes the effect of economic variables on the financial performance of listed firms manufacturing consumer goods in Nigeria. The researchers adopted Ex-post facto research design and Ordinary Least Square multiple regression analysis for estimation of the equations. The population comprises 20 listed consumer goods manufacturing companies, and total sample of 13 firms, the data covered 17 years' financial reports. We found a strong correlation between CPI, interest, exchange rates and net asset per share. CPI has significant effect on NAPS and there is short run relationship based on the coefficients ARDL, exchange and interest rates showed no significant effect on NAPS.

Egbunike and Okerekeoti (2018) investigated the effect of interest rate, inflation rate, exchange rate and the gross domestic product (GDP) growth rate, while the firm characteristics were size, leverage and liquidity. The dependent variable financial performance was measured as return on assets (ROA). The study used the ex post facto research design, and the population comprised all quoted manufacturing firms on the Nigerian Stock Exchange. The study used multiple linear regression as the method of validating the hypotheses. The study found no significant effect on interest rate and exchange rate, but a significant effect on inflation rate and GDP growth rate on ROA.

Ezenwa et al. (2021) investigated the impact of exchange rate volatility on the return on assets (ROA) of consumer goods manufacturing firms listed in Nigeria from 2010 to 2019. Employing a panel regression model, the researchers assessed the influence of exchange rate volatility, firm size, and leverage on ROA. The study found that exchange rate volatility, firm size, and leverage all had negative and statistically significant effects on ROA. The authors noted the persistent rise in exchange rates in Nigeria, which has significantly devalued the local currency, particularly in recent years.

Ojeyinka (2019) analyzed the effect of exchange rate volatility on the performance of Nigeria's manufacturing sector from 1981 to 2016, employing the Auto Regressive Distributed Lags (ARDL) approach and bounds testing for co-integration. The study revealed a long-term relationship among manufacturing sector value added and key macroeconomic variables, including exchange rate, exchange rate volatility, interest rate, inflation, imports, and gross capital formation. Notably, exchange rate volatility was found to have a significant positive effect on manufacturing performance in both the short and long term. Conversely, the exchange rate itself had a positive but statistically insignificant effect on output in the long term and a negative and significant impact in the short term.

Nwoye, Obiorah, and Ekesiobi (2015) conducted a research on the extent to which the economic growth of Nigeria has been influeneced by certain macroeconomic indicators like exchange rate, inflation rate, and monetary policy rate. Analyzing the relevant data extracts of 1999 - 2013 from the Central Bank of Nigeria Statistical bulletins, and National Bureau of Statistics for various years, the result of the Ordinary Least Square (OLS) regression analysis showed that there exist a significant relationship between Nigeria's exchange rate policies, rate of Inflation, CBN's monetary policy rates, and the manner and speed with which the economy of the country is growing (p-value 0.025 < 0.05).

MATERIALS AND METHOD

This study employed *ex-post facto* research design. The suitability of this choice was since the design allows researchers to establish the time sequence of the variables based on logical considerations which cannot be manipulated or altered by the researcher. The population of the study is made up of manufacturing firms listed on the Nigerian Exchange Group (NGX). The study is focused mainly on industrial and healthcare manufacturing firms listed on the floor of Nigeria Exchange Group. As at 31st December 2024, twenty (20) industrial goods and healthcare manufacturing firms were listed on the floor of Nigerian Exchange Group. The choice of industrial goods and healthcare manufacturing firms is since most of these companies are seriously affected by macroeconomic indicators. The study used purposive sampling techniques to select the sample size. A total number of thirteen (13) industrial goods and healthcare firms that have their financial statements available either on their website or on the website of the Nigerian Exchange Group as at 31st December 2024 was used as our sample size. Industrial goods and healthcare firms that have not operated on the floor of Nigeria Exchange Group for the period of ten years (2015 to 2024) were excluded from the population. We adopted the Ordinary Least Square (OLS) Regression analysis with the aid of SPSS version 20.0 software for the time series data to determine the relationship between the variables.

The study adapted and modified the model used by Omoke (2010). In this model GDP is the dependent variables while Inflation (INFL) and Interest Rate (INTR) are the independent variables. The model is stated below.

$GDP = \beta\ 0 + \beta\ i\ INFL + \beta\ 2INTR + U$ ……. Eqn 1.

Our study modified the model as follows:

In a functional form, we have $ROAit = f(EXGR, INFR)$ …… Eqn 2.

Expressing equation in econometric form, we have

ROAit = α + β1EXGRit + μit …….. Eqn 3.

ROAit = α + β2INFRit + μit …… Eqn 4.

The linear regression model to empirically test the hypothesis formulated is:

ROAit = αit + β1EXGRit + β2INFRit + εi …… Eqn 5.

Where:

ROA = Return on Assets, EXGR = Exchange Rate, INFR = Inflation Rates, β= the coefficient of the function term, e = error term, α= the constant term.

Table 1 Description of Variables

S/N	Name	Type	Measurement
1	Return on Asset	Dependent Variable	Net Income After Tax Divided by Total Assets.
2	Exchange Rate	Independent Variable	The data is measured as readily available on the Central Bank of Nigeria statistical Bulletin.
3	Inflation Rate	Independent Variable	The data is measured as readily available on the Central Bank of Nigeria statistical Bulletin.

Source: Researcher, 2025

RESU.T AND DISCUSSIONS

Test of Hypotheses

Hypothesis One

H_o: Exchange Rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria.

H_1: Exchange Rate has significant effect on business sustainability of listed manufacturing firms in Nigeria.

Table 2: ANOVA[a] Result: Exchange Rate and Return on Asset

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	1260.831	1	1260.831	.742	.414[b]
	Residual	13588.152	8	1698.519		
	Total	14848.983	9			

a. Dependent Variable: Return on Asset
b. Predictors: (Constant), Exchange Rate

Table 3 Regression Coefficients for Exchange Rate and ROA

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	32.961	22.354		1.474	.179
	Exchange Rate	-.033	.038	-.291	-.862	.414

Table 4 Model Summary[b] for Mobile Payment Transaction and ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.291[a]	.085	-.029	41.21309	1.133

a. Predictors: (Constant), Exchange Rate
b. Dependent Variable: ROA
Note: r^2 = 0.085, f(1,8) =0.742, p= 0.414
Source: SPSS Output, 2025

From Table 4 model summary shows that R square and the adjusted R square are 0.85 and -.029. This implies that 85% variation experienced in Return on Asset among the sampled variables was explained by the exchange rate. More so, it was observed from Table 2 (ANOVA Table) that the exchange rate is statistically insignificant to predict the return on assets since the probability value obtained (p-value), that is 0.414, is greater than 0.05 (P> 0.05). This was further confirmed in Table 3 where the coefficient of the exchange rate indicated a negative (T, -.862) exchange rate on return on assets. Based on the analysis above, the null hypothesis (H_0) is accepted while alternative hypothesis (H1) is rejected, which state that exchange rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria. This finding is inconsistent with observations made by Alalade, Idowu, Akande, Oliyide and Adebola (2024), Akinuli, Akintan, Adedayo and Adedotun (2024), Romanus, James and Esther (2024), Oladipo, Ado, Alesinloye, and Yusuf (2024), Ezenwa et al. (2021), Ghareli and Mohammadi (2016), Who in their studies discovered a positive significant relationship between exchange rate and return on assets but is consistent with observations made by Sharif (2023), Idaka Ugwoke, Ajuh, and Edith. (2021), Egbunike and Okerekeoti (2018), Kiganda (2014); Osho and Olusegun, (2019), who revealed a negative but insignificant relationship exist between exchange rate and financial performance of firms in Nigeria. The exchange rate maybe unstable and this affects the operations of many manufacturing firms both doing business domestically and internationally. The manufacturing companies hence are required to develop good measures to manage the foreign exchange risk (Osho et al., 2019). The use of certain currencies which are unstable may not be advisable for manufacturing firms that do business internationally.

Hypothesis Two

Ho: Inflation Rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria.

H_1: Inflation Rate has significant effect on business sustainability of listed manufacturing firms in Nigeria.

Table 5 ANOVA[a] Result: Inflation Rate and ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2541.815	1	2541.815	1.652	.235[b]
	Residual	12307.168	8	1538.396		
	Total	14848.983	9			

a. Dependent Variable: Return on Asset

b. Predictors: (Constant), Inflation Rate

Source: SPSS Output, 2025

Table 6 Regression Coefficients for Inflation Rate and ROA

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.716	33.791		1.708	.126
	Inflation Rate	-2.352	1.830	-.414	-1.285	.235

Source: SPSS Output, 2025

Table 7 Model Summary[b] for Inflation Rate and ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.414[a]	.171	.068	39.22239	1.002

Note: $r^2 = 0.171$ f(1,8) =1.652, p= 0.235

Source: SPSS Output, 2025

From Table 7 model summary shows that R square and the adjusted R square are 0.171 and 0.068 This implies that 171% variation experienced in return on asset among the sampled variables was explained by inflation rate. More so, it was observed from Table 5 (ANOVA Table) that inflation rate is statistically insignificant to predict the return on asset since the probability value obtained (p-value), that is 0.235, is greater than 0.05 (P> 0.05). This was further confirmed in Table 6 where the coefficient in inflation rate indicated a negative (T, -1.285) inflation rate on return on assets. Based on the analysis above, the null hypothesis (H_0) is accepted while alternative hypothesis (H1) is rejected, which state that inflation rate has no significant effect on business sustainability of listed manufacturing firms in Nigeria. This finding is consistent with the study of Oladipo, Ado, Alesinloye, and Yusuf (2024), Nnado and Ugwu (2016), Egbunike and Okerekeoti (2018) who conducted their study on macroeconomic factors on financial performance on quoted manufacturing firms in Nigeria. The study also showed that inflation rate had a negative effect on financial performance, other

studies have established that there is no relationship between inflation rate and financial performance (Otambo, 2016) same to (Owolabi, 2017) who found out that inflation rate had no significant effect on the financial performance of manufacturing firms in Nigeria. The difference in results is attributed to the measure of financial performance. Some studies have adopted return on assets while other firms have adopted return on equity, but inconsistent with observations made by Idaka Ugwoke, Ajuh, and Edith. (2021), a study that revealed a significant positive relationship between inflation rate and return on assets. However, a study by Abbey (2012) conducted in Ghana revealed that a positive relationship existed between inflation and financial development even though this was in short term. In the long run the study established that no relationship existed between the variables at all. This study adopted the Cointegration Approach, the Granger Causality testing procedure and the Conditional Least Squares technique.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study specifically provides empirical evidence on the effect of exchange rate, inflation rate and business sustainability of selected manufacturing firms in Nigeria. This study concludes that there is negative and insignificant effect between exchange rate, inflation rate and business sustainability of selected listed manufacturing firms in Nigeria. That economic policy has insignificantly and negative effects on the sustainability of industrial good and healthcare manufacturing companies in Nigeria.

Based on the findings of the study the researcher recommends the following:

1. The government should ensure that the Naira keeps on appreciating against the dollar by ensuring that the Nigerian products become more attractive to the outside world. Lowering the exchange rate will impact the manufacturing sector positively, as it will help the sector easily import plants and machinery to support production.
2. That the regulatory authorities including the Central Bank of Nigeria should find ways of having stable prices even in moments of crises or economy shocks to shield both the consumers and producers effectively and manufacturers should monitor local and global inflation. Understanding inflation's indirect effects on costs and pricing may help financial management.

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