



Investigating the Direction of Relationship Between Economic Indicators and Economic Growth in Nigeria

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Abstract

The study is on investigating the direction of relationship between economic indicators and economic growth in Nigeria. The specific objectives are as follows: to examine the relationship between inflation rate and real gross domestic product in Nigeria, to ascertain the relationship between exchange rate and real gross domestic product in Nigeria and to assess the relationship between interest rate and real gross domestic product in Nigeria. The study used secondary sources of data from the Central Bank of Nigeria Statistical Bulletin. An ex-post facto research design was also adopted. The study employed multiple regressions of the Ordinary Least Square (OLS) method. The results revealed that the inflation rate had a positive and non-significant relationship with real gross domestic product in Nigeria (t-statistics is 0.698872, while the probability value is 0.4916). The exchange rate had a positive and significant relationship with real gross domestic product in Nigeria (t-statistics is 3.330717, while the probability value is 0.002916). The interest rate had a negative and significant relationship with real gross domestic product in Nigeria (t-statistics is -2.110512, while the probability value is 0.0459). From the findings, the following recommendations were made: A major policy implication of these results is that concerted effort should be made by policymakers to increase the level of output in Nigeria by improving productivity/supply in order to reduce the prices of goods and services (inflation) and boost the growth of the economy. Inflation can only be reduced to the barest minimum by increasing the output level (GDP). The interest rate should be considered, and for there to be meaningful economic activity, the interest rate on investible funds must be brought low, either by monetary or fiscal policy measures, to encourage output and increase income. This is to enable an appreciable level of investment to exist within the economy and, in turn, stimulate economic growth. There should be a change in business operations and they must become formal without becoming too bureaucratic and the change must be properly managed. If successful, the exports are to perform and grow. The Federal government and its agencies should also formulate policies that will encourage exporters to source funds from the capital market, as well as improving business conditions and the business environment.

Keywords Macroeconomic Indicators; Economic Growth; Inflation Rate; Exchange Rate; Interest Rate

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Introduction

The macroeconomic policies adopted by a country determine the predictability of the domestic macroeconomic environment in-terms of resource allocation decisions, investment and economic growth. A stable macroeconomic environment enhances the capacity of a country to cope with both internal and external shocks, provides opportunities for hedging risks and offers various choices of fiscal, monetary and exchange rate policies. But macroeconomic instability in the form of volatility of key macroeconomic variables or unsustainability of their behaviours is often the outcome of poor macroeconomic policies (Serven & Montiel, 2020). Theoretical and empirical literature contend that the behaviours of macroeconomic variables such as inflation rate, real interest rate, real exchange rate, fiscal deficit relative to GDP and government debt relative to GDP are fundamental in the development process of any economy.

Hence, many developing countries strive to adopt policies (fiscal, monetary and exchange rate policies) that will guarantee favourable performances of these variables with a view to achieving macroeconomic stabilization and ultimately economic development. Todaro and Smith (2019) opine that the major goals of macroeconomic stability include; controlling inflation, restoration of fiscal balance and elimination of current accounts deficits. Thus, the International Monetary Fund and the World Bank are the two principal catalysts in the stabilization and adjustment policies of most developing countries through the provision of international private lending and multilateral development assistance.

Several developing economies traditionally experience greater macroeconomic instability than developed economies because of their inability to minimize their vulnerability to external shocks and accelerate economic development. The Maastricht Criteria³ highlighted five indicators that measure a country's macroeconomic stability to include low and stable inflation rate (within 3%), low currency fluctuation (within 3%), low long-term interest rate (within 9%), low budget deficit relative to GDP (within 3%) and low government debt relative to GDP (within 60%). Analogously, Serven and Montiel (2018) and Basci (2016) also enumerated these variables as the main indicators of macroeconomic stability.

Statement of Problem

The state-society gap is one of the biggest problems of economic development in Nigeria. The government has drifted away from its citizens by concentrating on the wants and demands of foreign interests to secure financial support and investments. Foreign interests encourage the government to make minimal input into building institutions, policies, and strategies that can increase domestic taxation and other forms of revenue. As a result, the country relies heavily on funds from foreign entities to function. The West (and China) helps perpetuate this state-society gap by providing international aid or Official Development Assistance. Development consultants that accompany aid money also have an external orientation. They focus on the desires and wants of the foreign entities from which they came. These consultants influence or advise the government to focus on foreign priorities instead of its people's desires and wants. Consequently, this widens the gap between the government and its people.

Corruption is among the greatest threats to Nigeria's development. The country's 2030 Agenda for Sustainable Development aspires to get over 100 million Nigerians out of poverty. Nigeria's natural resources include petroleum, natural gas, tin, iron ore, coal, limestone, niobium, lead, zinc, and arable land. The country earns a considerable sum of money from these resources. For instance, Nigeria made about \$47 billion from mineral fuels, oils, and distillation products in 2019. The amount was over 80% of the country's export value. The natural resources in Nigeria promote corruption and poverty instead of economic development—only a few pockets income from these resources, leaving millions impoverished. There are other forms of corruption in Nigeria. Nepotism and vote-buying have put corrupt leaders and workers in public offices. Hence, the standards of professionalism have deteriorated. Public officials solicit bribes, and citizens willingly initiate bribes in public and private offices. Citizens and officers who refuse and report bribes experience negative consequences.

Objectives of the Study

The broad objective of the study is to investigate the direction of relationship between economic indicators and economic growth in Nigeria 1986-2021. The specific objectives are as follows:

- i. To examine the relationship between inflation rate and real gross domestic product in Nigeria
- ii. To ascertain the relationship between exchange rate and real gross domestic product in Nigeria
- iii. To assess the relationship between interest rate and real gross domestic product in Nigeria

Research Questions

- i. What is the extent of relationship between inflation rate and real gross domestic product in Nigeria?
- ii. What is the extent of relationship between exchange rate and real gross domestic product in Nigeria?
- iii. What is extent of relationship between interest rate and real gross domestic product in Nigeria?

Research Hypotheses

- i. There is no significant and positive relationship between Inflation rate and real gross domestic product in Nigeria
- ii. There is no significant and positive relationship between Exchange rate and real gross domestic product in Nigeria
- iii. There is no significant and positive relationship between Interest rate and real gross domestic product in Nigeria

Scope of the Study

This study covered the investigation of the direction of relationship between economic indicators and economic growth in Nigeria from 1986-2021. The independent variable includes inflation rate, exchange rate and interest rate while dependent variable is real gross domestic product.

Review of Related Literature

Conceptual Review

Economic Indicator

Economic Indicator is the study of the economy as a whole, and the variables that control the macro-economy. The study of government policy meant to control and stabilize the economy over time, that is, to reduce fluctuations in the economy. Macroeconomic variable is certainly one of key drivers of economic growth and development through its influence on economy. The major aim of macroeconomic variable in Nigeria is the maintenance of domestic price and exchange rate solidity since it is crucial for the accomplishment of maintaining economic growth and external sector feasibility (Sanusi, 2015). Adefeso and Mobolaji (2020) employed Johansen maximum likelihood cointegration process which indicates a long run relationship between economic growth, degree of openness, government expenditure and M2. Ajisafe and Folunso (2012) observed that monetary policy exercise great impact on economic activity in Nigeria. (Kogar, 2020) looked at the correlation among financial innovations and monetary control and reached an agreement that in an improving financial structure, Central Banks cannot accomplish a well-organized monetary policy without positioning new strategy and mechanisms in the long-run, because profit maximizing financial institutions change or establish instruments in order to bypass laws or react to the present economic situation (Ogechukwu, 2019).

Examining the development of monetary policy in Nigeria over the last four decades (Nnanna et al., 2014) observe that though, the Monetary administration in Nigeria has been comparatively more prosperous during the period of financial sector reform which is characterized by the use of indirect rather than direct monetary policy tools yet; the efficacy of monetary policy has been eroded by the influence of fiscal dominance, political interference and the legal environment in which the Central Bank operates. Busari et. al. (2020) states that monetary actions stabilize the economy greater under a flexible exchange rate system than a fixed exchange rate system and it stimulates growth more under a flexible rate regime but is followed by severe depreciation, which could weaken the economy meaning

that monetary variables would better sustain the economy if it is used to target inflation directly than be used to directly stimulate growth. They counseled that other active measures and variables would be useful in supplementing macroeconomic stabilization.

Inflation

Inflation is defined as a generalized increase in the level of price sustained over a long period in an economy (Lipsey and Chrystal, 2018), that is, a persistent rise in the price levels of commodities and services, leading to a fall in the currency's purchasing power. Although inflation is a household word in many market-oriented economies, and there exist a compendium of empirical studies on the over-arching problem of inflation, yet only selected few seem to know about the determinants, mechanics and the real impact of inflation on national economic growth.

According to Hossain (2018), while high inflation is bad for an economy because of its adverse effect on economic performance, zero inflation is equally harmful because it will lead to eventual stagnation of the economy since its presence at a mild level is needed for economic growth. The problem of inflation is not confined to national boundaries neither is it restricted to emerging market economies of the world; it is also an over-arching challenge in the developed market economies, and since it is by no means a new challenge or phenomenon, over the years, its control has become the unquestioned mantra of economic policymakers worldwide. According to Melberg (2016), the term inflation describes a general and persistent increase in the prices of goods and services in an economy. Inflation rate is measured as the percentage change in the price index (consumer price index, wholesale price index, producer price index, etc.). Sien (2019) opine that the consumer price index (CPI), for instance, measures the price of a representative basket of goods and services purchased by the average consumer and calculated on the basis of periodic survey of consumer prices. Owing to the different weights the basket, changes in the price of some goods and services have impact on measured inflation with varying degrees. There are several disadvantages of the CPI as a measure of price level. First, it does not reflect goods and services bought by firms and/or government, such as machinery. Secondly, it does not reflect the change in the quality of goods which might have occurred overtime. Thirdly, changes in the price of substitutable goods are not captured.

Balami (2020) defined inflation as the general rise in the level of prices of a large group of goods and services for a long duration of time. Inflation refers to the continuous rise in prices and it can be measured using the CPI, Gross National Product Implicit Price Deflator. To measure inflation, we consider three methods or index, The Consumer price Index [CPI], Gross National Product [GNP] implicit deflator and the Wholesale or Producer Price Index [WPI or PPI]. The consumer price index (CPI) serves as a measure of inflation rates in Nigeria because it is currently available in the country in Monthly, Quarterly and Annual bases (CBN, 2019).

Exchange Rate

Exchange rate is the rate at which one currency will be exchanged for another (Aabo, 2014). It is also regarded as the value of one country's currency in relation to another currency (Abreu and Mendes, 2019). Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers, and where currency trading is continuous. The spot exchange rate refers to the current exchange rate. The forward exchange rate refers to an exchange rate that is quoted and traded today but for delivery and payment on a specific future date.

Exchange rate, also known as the foreign exchange rate, is how much one currency is worth compared to a different one. It is the rate at which one currency can be exchanged for another. Exchanges rates can change for many different reasons, for example the inflation rate of a country. An exchange rate is the value of one nation's currency versus the currency of another nation or economic zone (Adam, 2021).

A fixed exchange rate, sometimes called a pegged exchange rate, is a type of exchange rate regime in which a currency's value is fixed against either the value of another single currency, a basket of other currencies, or another measure of value, such as gold (Adetayo, 2020). There are benefits and risks to using a fixed exchange rate. A fixed exchange rate is typically used to stabilize the value of a currency by directly fixing its value in a predetermined ratio

to a different, more stable, or more internationally prevalent currency (or currencies) to which the value is pegged. In doing so, the exchange rate between the currency and its peg does not change based on market conditions, unlike in a flexible exchange regime. This makes trade and investments between the two currency areas easier and more predictable and is especially useful for small economies that borrow primarily in foreign currency and in which external trade forms a large part of their GDP.

Interest Rate

Ibimodo (2015) defined interest rates, as the rental payment for the use of credit by borrowers and return for parting with liquidity by lenders. Like other prices interest rates perform a rationing function by allocating limited supply of credit among the many competing demands. Bernhardsen (2018) defined the interest rate as the real interest rate, at which inflation is stable and the production gap equals zero. That interest rate very often appears in monetary policy deliberations. However, Anyanwoncha (2020) states that interest rates are charged for a number of reasons, but one is to ensure that the creditor lowers his or her exposure to inflation. Inflation causes a nominal amount of money in the present to have less purchasing power in the future.

The concept of the interest rate refers to the interest rate levied by the banks on loans or deposits. (Faris & Syed, 2017). The interest rate charged on loan is a form of revenue for the bank and at the same time represent the cost borne by the customer for borrowing the money and is termed as credit interest, on the contrary, while interest rates on deposits is cost, the bank is expected to pay to the customers and at the same time represent a form of revenue earned by the customers in exchange for retaining deposits with banks, also termed as debt interest rate. The difference between the debt and credit interest rate from all banking activities are called interest rate spread (IRS). What determines the rate of interest is the credit risk, thus, if the credit risk is high the interest rate on loans is high in order to compensate for the size of this risk. It is also referred to the cost or price of borrowed funds for a period of time, based on the concept of present values the cash value goes down over time due to many factors, including the rate of inflation.

Anyanwaokoro (1999) submitted that interest rate is a price for money and credit. According to Keynes, interest rate is the reward for not hoarding but for parting with liquidity for a specific period of time. Keynes' definition of interest rate focuses more on the lending rate. Adebisi (2017) defines interest rate as the return or yield on equity or opportunity cost of deferring current consumption into the future. Some examples of interest rate include the saving rate, lending rate, and the discount rate. Professor Lerner, in Jhingan (2020), defines interest as the price which equates the supply of 'Credit' or savings plus the net increase in the amount of money in the period, to the demand for credit or investment plus net 'hoarding' in the period. This definition implies that an interest rate is the price of credit which like other price is determined by the forces of demand and supply; in this case, the demand and supply of loanable funds.

Economic Growth

Economic Growth is an increase in the amount of goods and service produced per head of the population over a period of time while the health of a country's economy is measured by the Gross Domestic Product which is defined as the value of a country's total output of goods and services in a given period, normally one fiscal year (Agbonkheshe and Asekome, 2019). Begg (2016) posits that economic growth represents the expansion of a country's potential GDP or output. For instance, if the social rate of return on investment exceeds the private return, then tax policies that encourage can raise the growth rate and levels of utility. Growth models that incorporate public services, the optimal tax policy lingers on the characteristic of services. Economic growth has provided insight into why state growth at different rates over time; and this influence government in her choice of tax rates and expenditure levels that will influence the growth rates. Growth means an increase in economic activities. Todaro (2019) citing Kuznets defined a country's economic growth as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growth capacity based on advancing technology and the institutional and ideological adjustment that it demands.

Economic growth represents the expansion of a country's potential GDP or output (Onakoya and Somoye, 2017). For instance, if the social rate of return on investment exceeds the private return, then tax policies that encourage can raise the growth rate and levels of utility. Growth models that incorporate public services, the optimal tax policy lingers on the characteristic of services. Economic growth has provided insight into why state growth at different rates over time; and this influence government in her choice of tax rates and expenditure levels that will influence the growth rates. For instance, exponential growth model is used when the rate of increase is proportional to the amount of quality present e.g., $y(t) = y_0 e^{kt}$ where t is the amount present at any time t , y_0 is the amount present at initial time $= 0$; and the k is constant ($k > 0$) is the growth rate. If a company increase production, tax will increase, it is also useful in studies in population growth known as doubling times with the following equation. Growth means an increase in economic activities. Todaro (1995) citing Kuznets defined a country's economic growth as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growth capacity based on advancing technology and the institutional and ideological adjustment that it demands.

Theoretical Review

Drucker Theories (1946)

Drucker on Entrepreneurship Peter F. Drucker observe that "an entrepreneur is one who always searches for change, responds to it and exploits it as an opportunity." he emphasized two critical factors – innovation and resource- that led to the emergence of entrepreneurship. According to him, change is the real hub of entrepreneurship which creates the supply. A thing is regarded as a resource when its economic value is recognized. For example, mineral oil was considered worthless until the discovery of its use. Similarly, purchasing power was considered an essential resource by an innovative American entrepreneur who invented installment buying. According to Drucker, successful entrepreneurship involves the following things- Value and satisfaction obtained from a resource by the consumer are increased new values are created Material is converted into a fund or existing resources are combined in a new or more productive configuration Entrepreneurship is the practice which has a knowledge base. Entrepreneurship is not confined to huge businesses and economic institutions, it is equally important to small business, and non-economic institutions Entrepreneurship behavior rather than personality trait is more important to enhance entrepreneurship. The foundation of entrepreneurship lies in concept and theory rather than in intuition.

Schumpeter's Theory of Innovation

Joseph Schumpeter (1934) propounded the well-known innovative theory of entrepreneurship. Schumpeter takes the case of a capitalist closed economy which is in stationary equilibrium. He believed that entrepreneurs disturb the stationary circular flow of the economy by introducing an innovation and takes the economy to a new level of development. The activities of the entrepreneurs represent a situation of disequilibrium as their activities break the routine circular flow. Innovations of entrepreneurs are responsible for the rapid economic development of any country. Talking about innovation, he referred to new combinations of the factors of production, Schumpeter had assigned the role of innovator to the entrepreneur, who is not a man of ordinary managerial ability, but one who introduces something entirely new.

Theoretical Framework

This study is anchored on Schumpeter's Theory of Innovation. Schumpeter takes the case of a capitalist closed economy which is in stationary equilibrium. He believed that entrepreneurs disturb the stationary circular flow of the economy by introducing an innovation and takes the economy to a new level of development. The activities of the entrepreneurs represent a situation of disequilibrium as their activities break the routine circular flow. Innovations of entrepreneurs are responsible for the rapid economic development of any country.

Empirical Review

Inflation Rate and Economic Growth in Nigeria

Emeh (2021) examined inflation rate and Entrepreneurship Development in an Emerging Economy. The study was conducted through a survey in which copies of the questionnaire were distributed to elicit a response from the respondents which are small and medium businesses in South Eastern, Nigeria. The population size was 522. A sample size of 513 was obtained from the population from the field work. The study used the Analysis of Moment Structures (AMOS) to test this moderating effect, but could only establish a negative moderating effect of inflation on job creation. The study concludes that while access to markets and trade competition have nothing to do with local constraints on predicting job creation, trade deregulation does.

Kareen, Bakare, and Ologunla (2021), researched the nexus between globalization and economic growth in Nigeria from 1970 to 2018 using 2341 workers of federal ministries of works and housing. Primary data was applied through a questionnaire in which they were asked whether globalization has affected patronage of firms' product and their collective impacts on their ministries performances. 1290 (55.10%) agreed that growth of firms with international connection considerably changed GDP Nigeria; 815 (34.81%) agreed that hi-tech firms were greatly influenced by a high spate of globalization which meant an increase in patronage which couldn't have been without aftermath of globalization. 236 (10.08%) instead said that the market value of foreign firms was mainly helped by international politics which castrated the local market.

Victor (2017) conducted a study on the causes of persistent inflation in Nigeria. This study sought to identify the traditional and institutional inflation variables responsible for the instability phenomenon and the magnitude of the contribution of the defined variables to the rise in general price level. Secondary information on key macroeconomic variables in the economy from 1974 to 2020 were used. The data collected were analyzed using the Autoregressive Distributed Lag (ARDL) bounds test. The results showed that there existed a long run co-movement among the variables. Also, the ordinary least squares estimate showed that Real Effective Exchange Rate, Lagged Consumer Price Index, Real Broad Money, and Real Profits were statistically significant in influencing Consumer Price Index. The short-run relationship shows that 60% of disequilibrium errors from the previous year's shock converge back to the long-run equilibrium in the current year. The study, therefore, concluded that inflation in Nigeria, during the studied period, was driven by the pass-through of import prices to domestic prices via markup pricing by the firm. This was aided by domestic inflation persistence. It is therefore recommended that domestically produced products of good quality and adequate quantity must be substituted for imported ones and the Nigerian monetary authorities should adopt a monetary policy stance that does not easily deviate from the set financial target if persistent inflation is to be curbed in the country.

Exchange Rate and Economic Growth in Nigeria

Ejiogu, Chima, and Nwede, (2017) conducted a study on Exchange rate and Performance of Manufacturing Firms in Nigeria. The study employed a cross-sectional survey method which is an aspect of quasi-experimental research design. Data was collected via-structured questionnaire and personal interviews. 160 copies of the inquiry out of the 211 copies distributed were completed and returned. The analysis of data was done with the Spearman's rank order correlation coefficient with the assistance of the Statistical Package for Social Sciences (SPSS). The outcome of the research is that exchange is positive and it has a good relationship with the performance of firms. Conclusively, the performance of manufacturing firms in Port Harcourt is affected by globalization. The study, therefore, recommended that the careful efficiency of the process of production and capacity utilization should be adopted by firms to sustain competitive advantage over other competing firms; enabling the right skills, knowledge is acquired and committed to the quality product and service delivery to satisfy customers.

Agu, Nnaemeka, and Nneka (2016) carried out a study on the Impact of exchange rate on Nigeria Manufacturing Sector: A Study of Selected Manufacturing Firms in Enugu, the study aimed to pursue the following objectives: to evaluate the impact of trade liberalization on the consumption of Nigeria made products, to determine the impact of technology on product quality in the Nigeria manufacturing industry, to ascertain the impact of globalization on

employee job relations in the Nigeria manufacturing industry. The study had a population size of 640, out of which a sample size of 246 was realized using Taro Yamane Formula at 5% error to tolerance and a 95% level of confidence. The instrument used for data collection was primarily questionnaire and interview. The total numbers of 246 copies of the questionnaire were distributed while 230 copies were returned. The descriptive research design was adopted for the study. Three hypotheses were tested using linear regression statistical tool. The findings indicate that trade liberalization has significant negative effect on the consumption of Nigeria made products ($r = 0.893 > r = 0.544$; $tc = 29.976 > tt = 4.321$; $p < .05$).

Owolabi (2017) examined the impact of economic characteristics and financial performance of selected small and medium scale enterprises in Nigeria. This study investigated the impact of economic characteristics of small and medium scale enterprise operating environment represented by; government expenditure, inflation rate, interest rate and exchange rate fluctuations on financial performance of selected small and medium scale enterprises. The study adopted an ex-post facto research design. Stratified and random sampling methods were used to select 31 small and medium scale enterprises in Nigeria. The study used a regression analysis technique to test the formulated hypotheses. The findings revealed that the impact of economic characteristics on firm's financial performance existed but in diverse magnitude; economic characteristics proxy by interest rate, rate of inflation, exchange rate and government expenditure showed a negative and significant relationship with the performance of small and medium scale enterprise. Also, it was discovered that there is an overall negative significant relationship between economic characteristics on the performance of small and medium scale enterprise.

Interest Rate and Economic Growth in Nigeria

Abubakar (2015) examined the impact of economic factors on SSBs performance in Kano and Sokoto states. Questionnaire methods were used to collect data from the sampled SSBs. The data was analyzed using multivariate discriminant analysis and multiple regression technique in order to assess the level of performance as well as establish the significance of the relationship. The findings of this study clearly show that SSBs record low performance within the period studied and economic factors have significant impact on their performance in Kano and Sokoto states. The study recommends that government should create enabling environment for both existing and potential investors in the sector, through provision of adequate infrastructures, financial support and formulation of policies favorable to SSBs.

Okwu, Bakare and Obiwuru (2020) studied business environment, interest rate, job creation and employment capacities of small and medium enterprises using Lagos State, Nigeria. The study employed descriptive approach to examine job creation and employment capacities of SMEs in relation to the Lagos State business environment. Analysis was based on ten elements of the business environment and two indicators of SMEs' relevance. The study used a composite of survey and co relational research designs to gather relevant information from which data for analysis were derived. Through survey, target population and sample size were determined. The target population used was 456 SMEs. The sample size was 228 while a convenience sampling technique was used. The findings revealed that inadequate access to external finance, high interest rate, competitive pressures, multiples taxes and other fees as well as corrupt practices were among the militating factors against the SMEs, while socio-cultural elements availability and costs of labour services did not constrain the enterprises. The study recommended practical policy measures to drive the traditional measures of providing external finance, tax and other incentives and infrastructure.

Onugu and Uzundu (2015) determined the influence of the socio-economic characteristics of cooperative members on the performance of their small and medium enterprises in Onitsha metropolis of Anambra State, Nigeria. A sample of 99 entrepreneurs, drawn from 10 cooperative societies in Onitsha North and Onitsha South Local Government Areas were sampled for the study. The findings showed that socio-economic characteristics (sex, age, education, cooperative experience as well as income) influenced significantly the performance of their SMEs. Also, it was found that the three characteristics; cooperative experience, level of income and education, explained significant variations in the gross margin

Research Gap

There exists lack of universality of opinion on the notion of what constitutes business success, as success is largely viewed within the subjective prism of the entrepreneur (Perez & Caninno, 2009, Ibrahim & Goodwin, 1986).

Prior studies for instance Abdullahi & Sulaiman (2015), Bala & Mukhtar (2014), Akinruwa, Awolusi & Ibojo (2020), concluded that the determinants of SMEs performance/success in Nigeria are multi-faceted. They however failed to align these factors to key performance/success indicator. This study therefore seeks to bridge the identified gaps by linking business environmental factors to key SMEs success indicator, especially in an economy like Nigeria where, arguably access to finance, inadequate infrastructure, weak institutional framework calumniating in inconsistent and sometimes hostile regulatory environment etc. constrain business opportunity exploitation. In measuring success, the study limits itself to financial measures of SMEs success specifically, profitability as this is believed to offer a quantifiable, objective and universal appraisal of success. Corroborating this position, Phillips (1999), asserted that long-term goals (market share, brand names and reputations etc.) achievement is contingent upon a firm capability to obtain profitability in the short run.

Methodology

Research Design

The research design employed in this research is the ex-post facto research design. Ex-post factor research design was adopted. This is because, the researcher does not aim to control any of the variables under investigation and our pre-disposition is to observe occurrence over a period of time (1986-2021).

Nature and Sources of Data

This study will employ secondary data sources from Annual Reports and Accounts of the Central Bank of Nigeria (CBN) under consideration in the research. Data were collected and extracted from the Central Bank of Nigeria (CBN) statistical bulletin.

Model Specification

A model is a simplified view of reality designed to enable a researcher describe the essence and inter relationship within the system or phenomenon it depicts (Onwumere, 2005). The hypotheses will be tested using the Simple Linear Regression Model. In writing the model equation, the following symbols were used to denote their respective variables.

$$RGDP = F(INFR, EXR, INTR) \dots \dots \dots 3.0$$

$$RGDP = \beta_0 + \beta_1 INFR_t + \beta_2 EXR_t + \beta_3 INTR_t + \mu \dots \dots \dots 3.1$$

Where:

- RGDP = Real Gross domestic product
- INFR = Inflation rate which is measured by Consumer Price Index (CPI)
- EXR = Exchange Rate
- INTR = Interest rate
- β_0 = Constant of the equation
- β = Coefficient of the independent variable
- μ = Error terms

Method of Data Analysis

The method to be adopted for analysis of the model will be multiple linear regression method with the use of e-view statistical software version 9.0. Preliminary tests such as normality test and would be conducted to ensure that the data is normally distributed. Decision would be based on 5 percent level of significance.

Results and Interpretations

Johansen Co-Integration Test

The co-integration analysis helps to test for the existence of long run stable relationship that exists between the dependent variable and its regression. Following the approach of Johansen and Juselius (1990) two likelihood ratio test statistic, the maximal eigen value and the trace statistic were utilized to determine the number of co-integration vectors.

Table 1: Johansen Co-Integration Test

Date: 06/15/23 Time: 11:30
 Sample (adjusted): 1988 2021
 Included observations: 34 after adjustments
 Trend assumption: Linear deterministic trend
 Series: LRGDP INFR EXR INTR
 Lags interval (in first differences): 1 to 1
 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.546802	50.05534	47.85613	0.0306
At most 1	0.367532	23.14686	29.79707	0.2389
At most 2	0.196008	7.570585	15.49471	0.5124
At most 3	0.004488	0.152942	3.841466	0.6957

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.546802	26.90847	27.58434	0.0608
At most 1	0.367532	15.57628	21.13162	0.2506
At most 2	0.196008	7.417643	14.26460	0.4410
At most 3	0.004488	0.152942	3.841466	0.6957

Max-eigenvalue test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: EViews, Output, 9.0

From table 1 above the trace statistic of 50.05534 clearly exceed the critical values 47.85613 with probability value of $0.0306 < 0.05$ percent confidence interval, hence, we are not accepting the null hypothesis and conclude that there is cointegrating relationship and therefore, a long run equilibrium relationship exists among the variables.

Test of Research Hypotheses

Table 2: Ordinary Least Square Model

Dependent Variable: LRGDP
 Method: Least Squares
 Date: 06/15/23 Time: 11:32
 Sample: 1986 2021
 Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.630819	0.248844	38.70218	0.0000
INFR	0.001715	0.000905	1.895497	0.0671
EXR	0.007083	0.001525	4.643971	0.0001
INTR	0.005504	0.010350	0.531716	0.5986
R-squared	0.772377	Mean dependent var		10.43998
Adjusted R-squared	0.751037	S.D. dependent var		0.554413
S.E. of regression	0.276631	Akaike info criterion		0.372174
Sum squared resid	2.448789	Schwarz criterion		0.548121
Log likelihood	-2.699134	Hannan-Quinn criter.		0.433584
F-statistic	36.19447	Durbin-Watson stat		0.649435
Prob(F-statistic)	0.000000			

Source: Eviews, Output, 9.0

Based on Table 2, the interpretation of the results as regard the coefficient of various regressors' is stated as follows:

The value of the intercept which is 9.630819 shows that vales of export will experience 9.630819% increase when all other variables are held constant. The estimate coefficients 0.001715(INFR) shows that a unit change in Inflation rate will cause 0.1% increase in real gross domestic product. The estimate coefficients 0.007083(EXR) shows that a unit change in Exchange rate will cause 0.7% increase in real gross domestic product. The estimate coefficients 0.005504(INTR) shows that a unit change in Interest rate will cause 0.5% increase in real gross domestic product.

From the above table the coefficient of multiple determination also called R^2 has a value of 0.772377 which is also 77% change in dependent variable by independent variable. This 77% shows that the model has goodness of fit. This also shows that Inflation rate, Interest rate and Exchange rate has goodness of fit on real gross domestic product.

From the same table the F-Statistics shows that all the variables were statistically significant which was represented by (36.19447) with p-value of 0.000000 which is less than 5% margin of significance.

Hypothesis Interpretation

Hypothesis One

H_1 : There is no significant and positive relationship between Inflation rate and real gross domestic product in Nigeria

Decision Rule:

Reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05 , if not, do not reject.

Decision: The decision criteria is to reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05 . It is shown in table 2 that the t-statics is 1.895497 while the probability value is 0.0671, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H_0) is accepted and

concluded that Inflation rate has positive and non-significant relationship with real gross domestic product in Nigeria.

Hypothesis Two

H₂: There is no significant and positive relationship between Exchange rate and real gross domestic product in Nigeria

Decision Rule:

Reject H₀ if the statistic is > 2.0 and the probability of the t-statistics is < 0.05, if not, do not reject.

Decision: The decision criteria is to reject H₀ if the statistic is > 2.0 and the probability of the t-statistics is < 0.05. It is shown in table 2 that the t-statics is 4.643971 while the probability value is 0.0001, this depict that the t-statistics is greater than 2.0 while the probability value is less than 0.05; therefore, the null hypothesis (H₀) is rejected and concluded that Exchange rate has positive and significant relationship with real gross domestic product in Nigeria.

Hypothesis Three

H₃: There is no significant and positive relationship between Interest rate and real gross domestic product in Nigeria

Decision Rule:

Reject H₀ if the statistic is > 2.0 and the probability of the t-statistics is < 0.05, if not, do not reject.

Decision: The decision criteria is to reject H₀ if the statistic is > 2.0 and the probability of the t-statistics is < 0.05. It is shown in Table 2 that the t-statics is 0.531716 while the probability value is 0.5986, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H₀) is accepted and concluded that Interest rate has positive and non-significant relationship with real gross domestic product in Nigeria.

Discussion of Findings

In interpreting hypothesis one; it is shown in Table 2 that the t-statics is 1.895497 while the probability value is 0.0671, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H₀) is accepted and concluded that Inflation rate has positive and non-significant effect on real gross domestic product in Nigeria. This study agreed with the study of Emeh (2021) examined inflation rate and Entrepreneurship Development in an Emerging Economy. The study was conducted through a survey in which copies of the questionnaire were distributed to elicit a response from the respondents which are small and medium businesses in South Eastern, Nigeria. The population size was 522. The study used the Analysis of Moment Structures (AMOS) to test this moderating effect, but could only establish a negative moderating effect of inflation on job creation. The study concludes that while access to markets and trade competition have nothing to do with local constraints on predicting job creation, trade deregulation does.

In interpreting hypothesis one; it is shown in Table 2 that the t-statics is 4.643971 while the probability value is 0.0001, this depict that the t-statistics is greater than 2.0 while the probability value is less than 0.05; therefore, the null hypothesis (H₀) is rejected and concluded that Exchange rate has positive and significant effect on real gross domestic product in Nigeria. This study agreed with Ejiogu, Chima, and Nwede, (2017) who conducted a study on Exchange rate and Performance of Manufacturing Firms in Nigeria. The analysis of data was done with the Spearman's rank order correlation coefficient with the assistance of the Statistical Package for Social Sciences (SPSS). The outcome of the research is that exchange is positive and it has a good relationship with the performance of firms.

In interpreting hypothesis one; It is shown in Table 2 that the t-statics is 0.531716 while the probability value is 0.5986, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H₀) is accepted and concluded that Interest rate has positive and non-significant effect on real gross domestic product in Nigeria. This study conforms to the study of Okwu, Bakare and Obiwuru (2020) who studied business environment, interest rate, job creation and employment capacities of small and medium enterprises using Lagos State, Nigeria. The study employed descriptive approach to examine job creation and employment capacities

of SMEs in relation to the Lagos State business environment. Through survey, target population and sample size were determined. The target population used was 456 SMEs. The sample size was 228 while a convenience sampling technique was used. The findings revealed that inadequate access to external finance, high interest rate, competitive pressures, multiples taxes and other fees as well as corrupt practices were among the militating factors against the SMEs, while socio-cultural elements availability and costs of labour services did not constrain the enterprises.

Summary of Findings

This study has explored the direction of relationship between economic indicators and economic growth in Nigeria from 1986–2021. The following findings were made from the above analysis:

- i. Inflation rate has positive and non-significant relationship with real gross domestic product in Nigeria. This result confirmed the result (t-statistics is 1.895497 while the probability value is 0.0671).
- ii. Exchange rate has positive and significant relationship with real gross domestic product in Nigeria. This result confirmed the result (t-statistics is 4.643971 while the probability value is 0.0001).
- iii. Interest rate has positive and non-significant relationship with real gross domestic product in Nigeria. This result confirmed the result (t-statistics is 0.531716 while the probability value is 0.5986).

Conclusion

From findings the variables for macroeconomic indicators t which include Inflation rate and Interest rate came out with positive and non-significant outcome while Exchange rate shows positive effect on real gross domestic product in Nigeria. The results of the study show that several factors such as inflation, exchange rate and interest rate directed at borrowing from bank to produce for export did not stand the test of time and while exploiting the economic potentials of exportation activities in Nigeria is still a mirage as the program had constraints from deriving maximum benefits from them due to administrative bottlenecks and policies on export.

Recommendation

From the findings the following findings were made:

- i. A major policy implication of this result is that concerted effort should be made by policy makers to increase the level of output in Nigeria by improving productivity/supply in order to reduce the prices of goods and services (inflation) so as to boost the growth of the economy. Inflation can only be reduced to the barest minimum by increasing output level (GDP).
- ii. Interest rate is to be considered for there to be a meaningful economic activity interest rate on investible fund must be brought low either by monetary or fiscal policy measures to encourage output and increase income. This is to enable appreciable level investment to exist within the economy and in turn stimulate economic growth.
- iii. There should be a change in business operation and must become formal without becoming too bureaucratic and the change must be properly managed if successful, the exports are to perform and grow. The Federal government and its agencies should also formulate policies that will encourage exporters to source funds from the capital market as well as improving business conditions and the business environment.

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