

**GOVERNMENT EXPENDITURES AND NATIONAL ECONOMIC DEVELOPMENT IN NIGERIA FROM 1980 - 2019**

**Dim, Cletus Uzochukwu PhD**  
**Department of Accounting,**  
**Ignatius Ajuru University of Education, Rumuolumeni Port Harcourt, Nigeria**

*Email: cdim6908@gmail.com*

**ABSTRACT**

The study investigated government expenditures and national economic development. The study adopted both correlational and ex-post facto designs. Thus, the population of the study was the entire Nigeria. Covering thirty-nine (39) years (1980-2018) of federal government of Nigeria expenditure and its economic development index in Nigeria. The instrument for this study was secondary data. The research questions were analyzed using descriptive statistics. Whereas the formulated hypotheses were tested using panel regression analysis. The results of the findings were that; there is a positive and significant relationship between expenditure on administration and real gross domestic product; there is a positive but insignificant relationship between expenditure on economic services and real gross domestic product. On the other hand, there is a positive but insignificant relationship between expenditure on administration and the human development index (HDI). There is a negative and insignificant relationship between expenditure on economic services and the human development index (HDI). There is a positive but insignificant relationship between expenditure on social and community services and the human development index. Thus, based on the findings of the study, the following recommendations were made, among others, that proper and better continued management of government expenditure on administration has impacted significantly on real gross domestic product. To increase the development rate of the economy, the government must adopt stringent controls on its capital expenditures on economic services, such as infrastructure, agriculture, power, or electricity and transportation, so as to reduce fraud, fund diversion, and mismanagement. The government should increase its capital social and community service expenditure allocation bearing in mind its multiplier effects on long-run economic growth. Digitalization of pension and gratuity payments, bureaucratic management and published payment of public debts in order to increase the balance deficit balance of payment and better currency valuation. The study recommends that spending on capital administration expenses should be reduced while more money should be invested in providing the enabling policies and environment for private sector initiatives to strive for human capital development in Nigeria.

***Keywords: Government expenditures, national economic development, expenditure on administration, real gross domestic product, expenditure on social and community services and expenditure on economic services and human development index (HDI).***

**INTRODUCTION**

Sustained and equitable economic development is a major objective of government expenditure policy. Thus, public expenditure plays an important role in physical and human capital formation over time and as such, it is obligatory of any government to allocate public spending across different sectors of the economy (Enya, et al. 2015). Unfortunately, over the years Nigeria has been faced with the problem of translating rising government expenditure to meaningful economic development. The question of whether or not public expenditure stimulates economic development has dominated theoretical and empirical debate for a long time. One viewpoint believes that government involvement in economic activity is promoting growth, but an opposing view holds that government operations are inherently inefficient, bureaucratic and therefore stifles rather than

promotes growth, while some studies still are of the view that public expenditure is indeterminate of economic development (Aschauer, 2012).

Globally, government expenditure has been a source of interest to both scholars and macroeconomic policymakers due to its effects on the level of growth in an economy. Many political philosophers like Hobbes and Locke considered the hypothetical disadvantages of life without government (Miles, 2003). This must have given governments in Nigeria and other developing countries, where market failures and other socially unwarranted vices are predominant, the impetus to exercise greater controls and discretion over their economies. They do this through periodic planning for the allocation of resources and productive spending in critical areas of need. Thus, government expenditure has become an important factor for self-sustaining productivity improvements and long-term growth of a nation. Sustained and equitable economic development is clearly a predominant objective of government expenditure policy. It is therefore incumbent on government to allocate public spending across various sectors of an economy in order to maximize prospects of achieving its growth and development objectives (Bonmwa & Ishmael, 2017).

According to Ehekoba and Amakor (2017), government expenditures are the costs that are usually incurred by the government for the provision and maintenance of itself as an institution, the economy and society. According to CBN (2011), public expenditure is functionally classified into four (4) categories in Nigeria: administration, economic services, social and community services, and transfers with capital and recurrent expenditure consumptions for each class. Udoffia and Godson (2016), refers to government expenditure as expenses incurred by the government for the maintenance of itself and provision of public goods, services and works needed to foster or promote economic development and improve the welfare of people in the society. According to Alice (2014), government expenditure can be described as expenses which any government incurs for its own maintenance, for the good of society and the economy, and for assistance to external bodies and other countries. It refers to the expenditure of government on governmental bodies and on various segments of the economy. A good pattern of government expenditure encourages economic development, favours the provision of employment and good roads, and ensures increase in salaries of civil servants.

In Nigeria, available statistics below show that federal government expenditure has continued to rise over the years. This is due to receipts from oil and non-oil revenue as well as an increasing demand for public goods such as roads, electricity, education, health and security, etc (Akpan, 2018). According to Central Bank of Nigeria (CBN statistical bulletin (2019), the federal government recurrent expenditure which stood at N4.85b in 1981 increased to N579.3 billion in 2001, and N893.38billion in 2010, N1,851.56 trillion in 2015, while N4.9 trillion in 2019. Government capital expenditure on the other hand witnessed a rise from N6.57 billion in 1981 to N438.7 billion in 2001 and N883.87 by 2010, 5.58 trillion in 2015. However, the increase in government expenditure over the years may not have translated into meaningful economic development as many Nigerians are still living in poverty. Data from World Development Indicator (2019) placed about 63.1 percent of Nigeria's total population living below \$1.25 a day. Although the Nigerian economy is projected to be growing, the gap between the rich and the poor continues to widen. Hence there is a need to evaluate the relative effect of government expenditure on economic development in Nigeria.

### **Statement of the Problem**

Despite the rising government expenditures in Nigeria, the problem of translating this into meaningful growth and development of the country has been daunting over the years. This is evident by the high rates of unemployment, illiteracy rate, and the number of its citizens who continue to wallow in abject poverty, as more than 65% of its people live on less than US \$1 per day. As high as 70% of Nigerians also lack medical care, do not have access to clean and portable water, and basic needs (WHO, 2018). A glance analysis of the World Bank (2020) review revealed macro-economic indicators do not favour Nigeria. For instance, indicators like balance of payments, import obligations (35.2 billion USD), inflation rate (15.7%), exchange rate (380.07), unemployment

(17.2%) and national savings (13.1% of GDP) It revealed that Nigeria had not fared well in the last four-decade despite being the largest economy in Africa with an estimated GDP of US \$446,543billion.

In view of the importance of government expenditures in the transformation of an economy, especially that of Nigeria, many local and foreign empirical studies and webmetric analyses have been reviewed with prominent gross domestic product used as the measuring variable, and also focused directly on government capital and recurrent expenditures as dimensions, and with most studies covering a twenty (20) year period.

Thus, this incited the researchers to fill the gap in the study titled government expenditures and national economic development by introducing the four (4) categories of public expenditure functionalities in Nigeria as dimensions of the study: expenditure on administration, expenditure on economic services, expenditure on social and community services, and expenditure on transfers. also introduced the human development index (HDI) and customer (CPI) in order to examine and measurthe physical development of citizens and measure the cost of living and prices of goods and services respectively, within the rising government expenditures and maintaining real gross domestic product (RLGDP). The introduced inflation rate as a moderator variable to fill the knowledge gap. This study also focused on thirty-nine-year (1980-2019) time series analysis. and shifted from the overflowed economic growth literature to a more comprehensive view of national economic development.

### Conceptual Framework

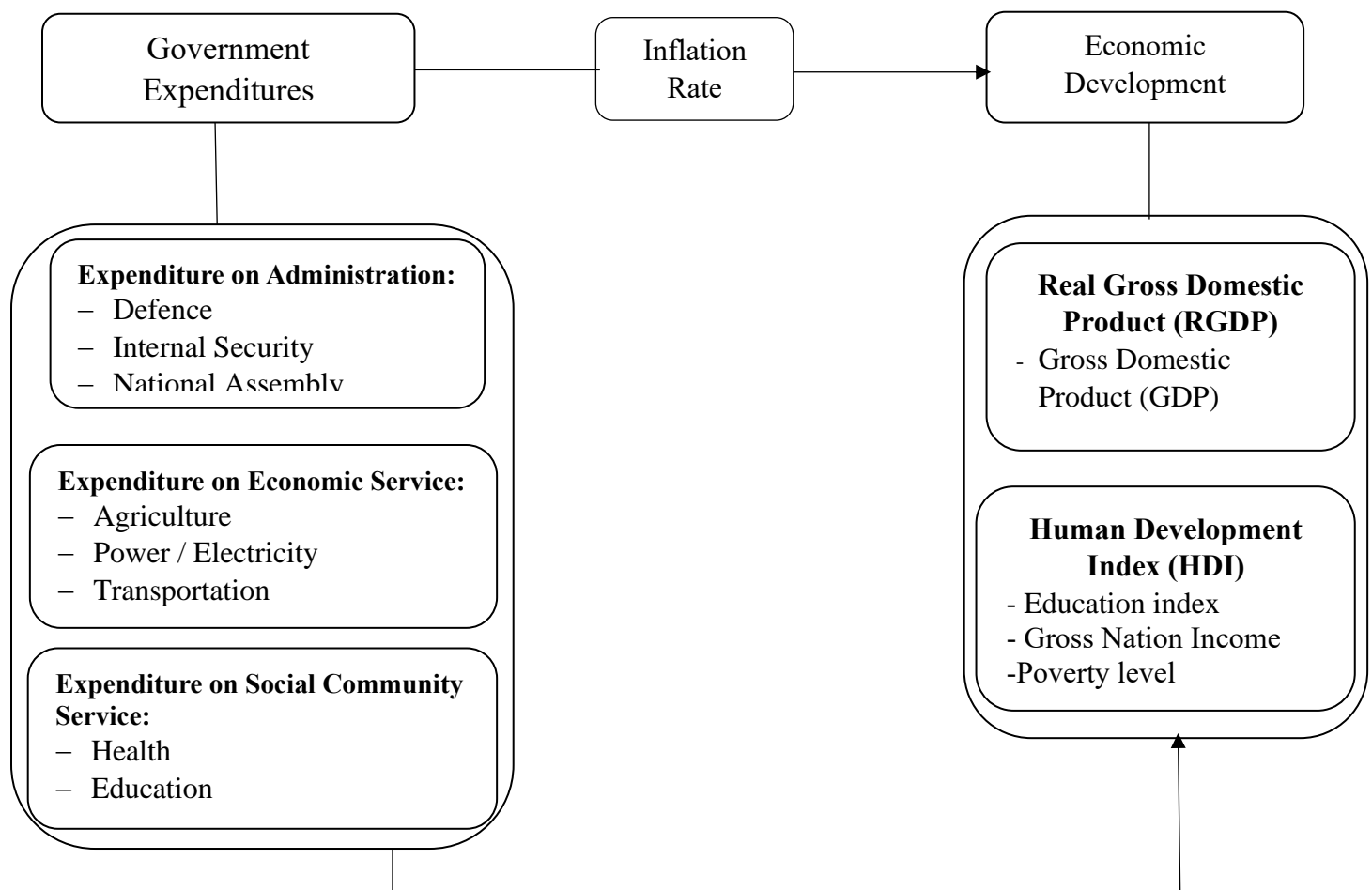


Figure 1.1 Conceptual Framework Model

*Sources of conceptualization:* CBN (2011), Bonmwa and Ishmael (2017), Enya, et al., 2015, Alice (2014) and Udoffia and Godson (2016) and Researcher's conceptualization, 2019.

### **Aim and objectives of the Study**

The general aim and objective of this study is to investigate government expenditures and national economic development in Nigeria from 1980 to 2019. Specifically, the study attended to the following objectives:

1. Investigate the relationship between expenditure on administration and real gross domestic product (RLGDP).
2. Investigate the relationship between expenditure on economic services and real gross domestic product (RLGDP).
3. Investigate the relationship between expenditure on social and community services and real gross domestic product (RLGDP).
4. Investigate the relationship between expenditure on administration and human development index (HDI).
5. Investigate the relationship between expenditure on economic services and human development index (HDI).
6. Investigate the relationship between expenditure on social and community services and human development index (HDI).
7. Investigate the moderating influence of inflation rate in the relationship between government expenditures and national economic development in Nigeria from 1980 to 2019.

### **Research Hypotheses**

The following null hypotheses were tested at 0.05 level of significance.

- Ho<sub>1</sub>: There is no significant relationship between expenditure on administration and real gross domestic product (RLGDP).
- Ho<sub>2</sub>: There is no significant between expenditure on economic services and real gross domestic product (RLGDP).
- Ho<sub>3</sub>: There is no significant relationship between expenditure on social and community services and real gross domestic product (RLGDP).
- Ho<sub>4</sub>: There is no significant relationship between expenditure on administration and human development index (HDI).
- Ho<sub>5</sub>: There is no significant relationship between expenditure on economic services and human development index (HDI).
- Ho<sub>6</sub>: There is no significant relationship between expenditure on social and community services and human development index (HDI).
- Ho<sub>7</sub>: Inflation rate does not have moderate influence on the relationship government expenditures and national economic development in Nigeria from 1980 to 2019.

### **Review of Related Literature**

#### **Government Expenditures**

Government expenditure (spending or disbursement) refers to expenses which a government incurs for (i) its own maintenance, (ii) the society and the economy, and (iii) helping other countries (Bhatia, 2008). According to John and George (2005), public expenditure refers broadly to expenditure made by local, state and national government agencies as distinct from those of private individuals. Shantayanan, et al. (2016) maintained that, public expenditure also comprises of government payments for the goods and services acquired and for the works done pursuant to their respective laws, social security contributions, interest payments of domestic and foreign debts, general borrowing expenditures, payments resulting from the discounted sale of borrowing instruments, economic, financial and social transfers, donations and grants, and others. According to Fatima et al. (2014), refer to expenses incurred by the government for the maintenance of itself

and provision of public goods, services and works needed to foster or promote economic development and improve the welfare of people in the society. Government (public) expenditures are generally categorized into expenditures on administration, defense, internal securities, health, education, foreign affairs, etc. and have both capital and recurrent components.

According to Taiwo (2012), government's spending is a fiscal instrument which serves a useful role in the process of controlling inflation, unemployment, depression, balance of payment equilibrium and foreign exchange rate stability. In the period of depression and unemployment, government spending causes aggregate demand to rise and production and supply of goods and services follow the same direction. Public expenditure is therefore an important tool that brings about egalitarian society through the provision of welfare facilities, and a major component of national income as seen in the expenditure approach to measuring national income:  $(Y = C+I+G + (X - M))$  (Ogba, 20199). This implies that government expenditure is a key determinant of the size of the economy and of economic development. However, it could act as a two-edged sword: It could significantly boost aggregate output, especially in developing countries where there are massive market failures and poverty traps, and it could also have adverse consequences such as unintended inflation and boom-bust cycles, (Wang & Wen, 2013). The effectiveness of government expenditure in expanding the economy and fostering rapid economic development depends on whether it is productive or unproductive. All things being equal, productive government expenditure would have positive effect on the economy, while unproductive expenditure would have the reverse effect.

The public spending in Nigeria has been rising astronomically due to the quest for economic development it engenders through increasing the growth rate of the economy, providing more employment opportunities, raising income and standard of living and reducing inequality of wealth and income as opined by Jhingan (2017), in one hand, and the increasing in the expansive roles of the government which involve protective functions, welfare functions and provision of social services on the other hand. The volume of public spending has been increasing in Nigeria since the military regime at the slower rate relative to what is obtainable in the current civilian regime. Despite this, the country has not experienced any meaningful development during the civilian period as Nigeria still falls among the world poorest which is more pronounced during the democratic period. In spite of the well-coordinated structure and policy of the Nigeria public expenditure which is expected to set the economy on course and ensuring that economy is not only at equilibrium but also promoting the growth in the output of the economy. According to Jhingan (2017), government expenditure policy involves decisions which influence the flow of funds from government into private economy with the view of achieving economic stability, employment generation and economic development. It is expedient to determine the effect of this government expenditure on the adjudged critical sectors of the economy on the economic development.

## **Dimensions of the Independent variable**

### **a. Expenditure on Administration**

Expenditure on administration is the money spent on administrative processes. Also known as cost of governance (Emmanuel, et al. 2013). According to Naftaly, et al (2014), expenditure on administrative refers to the cost responsibilities in the day-to-day administrative business of government. Administrative expenditures are divided in to separate sections for each ministry, department, or agency. These are projects on maintenance of the building of government offices, army barracks, staff quarters, staff maintenance, national assembly administrations, internal security, defence, various government departments, political appointees, the judiciary, the legislature, etc. According to Afolugbo (2004), expenditure on administration also referred of cost of governance is the cost incurred in running the government. It is the cost of performing political duties, and discharging civil services to the public.

**Defence:** Military expenditures data from Stockholm International Peace Research Institute (SIPRI) are derived from the North Atlantic Treaty Organization (NATO) definition, which includes all current and capital expenditures on the armed forces, including peacekeeping forces; defense ministries

and other government agencies engaged in defense projects; paramilitary forces, if these are judged to be trained and equipped for military operations; and military space activities. Such expenditures include military and civil personnel, including retirement pensions of military personnel and social services for personnel; operation and maintenance; procurement; military research and development; and military aid (in the military expenditures of the donor country). Excluded are civil defense and current expenditures for previous military activities, such as for veterans' benefits, demobilization, conversion, and destruction of weapons.

**Internal Security:** Security is not a discrete or measurable variable in quantitative terms. But spending on internal security can be used as proxy to quantify the volume of security especially if the spending is effective. At the inception of every government, the President or Governor swears to an oath to among other things protect life and property. So security is a key concern of government (at all tiers) in Nigeria (Aphu, 2019).

**National Assembly:** The national assembly is charged with the responsibility of making laws, the examination and approval of national budgets, as well as other oversight functions. The legislature is required to sit at least 188 days a year. The rights and the obligations of the National Assembly have been enhanced over preceding governments (Lewis, 2011).

### **b. Expenditure on Economic Services**

Expenditure on economic services are directed toward the development and strengthening of the economic infrastructure and other economic activities in the country. Expenditure on economic services provision by the government is aimed at human development and also the provision of economic services is aimed at economic development. Expenditure on economic services are divided in to separate sections for each ministry, department, or agency. These are projects that fall in to both capital and recurrent expenditure such as expenditure on agriculture, trade, industry, mining, power stations, communication, forestry, etc. According to Afolugbo (2004), Expenditure on economic services is cost of governance incurred on investment for future benefits. It is the cost of performing economic infrastructures.

**Agriculture:** Agricultural sector output has fluctuated widely and productivity has also declined. In terms of government expenditure and its contribution to GDP. Available statistics from the CBN show that the agricultural sector's share of GDP increased from 28% in 1985 to 32% in 1988, dropped to 31% in 1989, rose again to 37% in 1990 but fell significantly to 24% in 1992 and increased to 37% in 1994. It was 32% in 1996 and rose to 40% in 1998, dropped again to 27% in 2000, increased to 37% and fell to 31% in 2002 and 2006 respectively. The percentage contribution of the agricultural sector to GDP fell persistently despite the continuous rise in government expenditure from 0.37 in 2009 to 0.22 in 2012 and to 0.20 in 2014 (CBN, 2014).

**Power / Electricity:** Nigeria's Federal Government plans a 90 per cent increased access to electricity by 2030 and at least 10 per cent increase in renewable energy mix by 2025 as contained in the National Electric Power Policy (NEPP) of 2001 and the Electric Power Sector Reform Act 2005 (EPSR Act 2005) respectively. Country's Rural Electrification Agency (REA) says it is targeting a 60 per cent rural electrification by 2020, connecting 5.5 million rural households in the same time period. This is 2020, we are very far from achieving these plans, despite the huge investments by government on power over the years. Many Nigerians and investors are not sure how the agency might achieve this, (Osabohien, 2019).

**Transportation:** Government expenditure on transport includes expenditure on administration, regulation, construction and maintenance of the transport infrastructure (including road, water, railway and air transport as well as any infrastructure for the transport of goods such as pipelines). It also includes the operation of public transport corporations classified with the general government sector and any subsidies or investment grants to market producers to operate public transport. In 2017, government expenditure on transport amounted to 1.9 % of GDP, below the figure of 2.0 % for 2016 above. Transport development can contribute to the economy directly through addition to capital stock via increase in transport infrastructure.

### **c. Expenditure on Social Community Service**

Bodunrin (2016) stated that government spend on social and community services, remains a debate as the effort put in by previous and present administrations have not yielded positive evidence, the nation's economy is in recession, rated high in poverty, high level of unemployment and unfavourable exchange rate situation. It is believed that as a country develops economically, it is able to provide more for the basic needs of its citizens such as education, healthcare and a better quality of life.

**Health:** Health is one of the most important factors that determine the quality of human capital, a necessary factor for economic development. The recognition of the importance of the above led the World Health Organisation (WHO) to propose at the 2010 World Health Assembly, issues that will address financing of health, which will ensure qualitative and affordable health care services, (Ataguba & Akazili, 2010). The pattern of health financing is therefore closely and indivisibly linked to the quality of health outcomes (health status), capable of achieving the long-term goal of enhancing nation's economic development (Riman, 2012).

### **Economic Development**

According to Onuoha (2011), economic development is commonly defined as the economic growth plus structural transformation in the economy. This implies that economic development goes beyond growth. It encompasses changes in the composition of output and in the allocation of inputs by the different sectors of the economy. Onuoha (2011), further argued that economic development is a multidimensional process, which involves the reorganization of the entire economic and social system. That is, it involves improvement in the income and output of an economy as well as total changes in the social, institutional and administrative structures. Arelu, (2014), notes that the growth and development of the Nigerian economy has remained largely stunted and stagnant over the years as a result of many factors, one of which is the challenge of corruption and ineffective use of tax revenues to the benefits of payers of such taxes and over reliance on oil revenue.

Buckles in Oleka and Okwo (2005), posited that gross domestic product which measures economic growth is the total market value of all final goods and services produced within the political boundaries of an economy during a given period. The GDP could be either nominal or real. However, real GDP depicts better the rate of growth. Nominal GDP is obtained just by multiplying the quantity of each product by its price and adding the results. But the real GDP of 1993, for example, is the sum of 1993 production of various goods and services valued at 1992 prices.

### **Measures of Economic development**

#### **a. Gross Domestic Product (GDP)**

##### **Real Gross Domestic Product (RLGDP)**

Callen (2018), real gross domestic product (GDP) is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year, expressed in base-year prices, and is often referred to as "constant-price," "inflation-corrected" GDP. Unlike nominal GDP, real GDP accounts for changes in price levels and provides a more accurate figure of economic development.

Tim (2018), One thing people want to know about an economy is whether its total output of goods and services is growing or shrinking. But because GDP is collected at current, or nominal, prices, one cannot compare two periods without making adjustments for inflation. To determine "real" GDP, its nominal value must be adjusted to take into account price changes to allow us to see whether the value of output has gone up because more is being produced or simply because prices have increased. A statistical tool called the price deflator is used to adjust GDP from nominal to constant prices.

GDP is important because it gives information about the size of the economy and how an economy is performing. The growth rate of real GDP is often used as an indicator of the general health of the economy. In broad terms, an increase in real GDP is interpreted as a sign that the economy is doing well. When real GDP is growing strongly, employment is likely to be increasing as companies hire more workers for their factories and people have more money in their pockets. At present, concerns are in the opposite direction. After several years of exceptionally strong real GDP growth, many countries are experiencing a slowdown, with real GDP estimated to have declined in a number of industrial countries in recent quarters. But real GDP growth does move in cycles over time. Economies are sometimes in periods of boom, and sometimes periods of slow growth or even recession (with the latter sometimes defined as two consecutive quarters in which output declines) (Tim, 2018).

### **Human Development Index (HDI)**

The concept of human development index (HDI) looks beyond GDP to a broader definition of well-being. It provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and enrolment at the primary, secondary and tertiary level) and having a decent standard of living (measured by purchasing power parity, PPP, income) (Oziengbe, 2013). James (2019) stated that the HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy.

Human development index is a statistic composite index of life expectancy, education, and per capita income indicators, which are used to rank countries into four tiers of human development. A country scores a higher HDI when the lifespan is higher, the education level is higher, and the gross national income GNI (PPP) per capita is higher. It was developed by Pakistani economist Mahbub ul Haq and Indian economist Amartya Sen and was further used to measure a country's development by the United Nations Development Programme (UNDP)'s Human Development Report Office (James, 2019).

The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic development alone. The HDI can also be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. These contrasts can stimulate debate about government policy priorities. The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions (USAID, 2014).

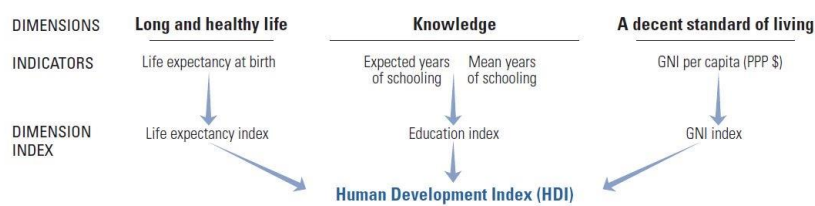
The health dimension is assessed by life expectancy at birth, the education dimension is measured by mean of years of schooling for adults aged 25 years and more and expected years of schooling for children of school entering age. The standard of living dimension is measured by gross national income per capita. The HDI uses the logarithm of income, to reflect the diminishing importance of income with increasing GNI. The scores for the three HDI dimension indices are then aggregated into a composite index using geometric mean, (Akpokerere & Ighoroje, 2013).

A fuller picture of a country's level of human development requires analysis of other indicators and information presented in the statistical annex of the report.



Figure 1.1

Human Development Index (HDI)



Nigeria's economic development is driven by the oil and non-oil resources exploited from the land yet, poverty and unemployment are still issues of great concern. The UNDP (2016) data shows that the probability of not living past the age of 40 is 39%, adult literacy for ages 15 and above is 30.9%, 52% of the population have no access to clean drinking water and the Human Poverty Index was estimated at 37.3 points. While there are evidences that economic development has brought about development in other parts of the globe, the evidences for Nigeria are mixed. From 2001 to 2003, Nigeria's HDI dropped from 0.463 to 0.45 (UNDP, 2005). For the same period, GDP growth rate moved from 4.6% to 10.2% (CBN, 2007). It shows that, while the nation recorded growth in the economy, it did not lead to development. While official figures are being published daily to show that the Nigerian economy is growing, the average quality of life for Nigerians is still low as captured by the human development index (Akpokerere & Ighoroje, 2013).

### Inflation Rate

Inflation can be defined as the continuous increase in the general level of prices of goods and services over time or, more simply, as too much money chasing too few goods. Inflationary periods bring about a continuous decline in the purchasing power of money. Studies on inflation and growth can be traced as far back as the classical economic theories and up to modern theories. Today the relative importance of inflation in propelling economic growth remains a subject of debate. This paper offers a detailed review of the literature on growth theories concerning the relationship between inflation and economic growth. Most central banks' monetary policies aim to maintain a low inflation rate and high economic growth. Very high inflation affects the economy drastically, but there is some evidence that moderate inflation might also affect output growth in the long run (Temple 2020). Aiyagari (2020), posits that there is no benefit in lowering inflation towards zero. As propounded by Adam Smith, the classical theory assumes that there are three factors of production: land, labour, and capital. Savings is considered the most important determinant of economic growth. No direct relationship exists between inflation and its tax effect on the profit level and output. The assumption that capitalists compete in the labour market, which leads to an increase in wage costs. Therefore, the relationship between inflation and economic growth is implicitly negative, leading to higher wages and a reduction in a firm's profit level (Gokal & Harfi 2014). Later, the classical economic theory stated that output and employment are determined by the short-run production function of labour and capital, and not by the creation of money.

Johnson (2019), inflation is the rate at which the value of a currency is falling and consequently the general level of prices for goods and services is rising. Inflation is the decline of purchasing power of a given currency over time. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods. Inflation is an increase in the level of prices of the goods and services that households buy. It is measured as the rate of change of those prices. Typically, prices rise over time, but prices can also fall (a situation called deflation).

Inflation reduces the purchasing power of each unit of currency, which leads to increases in the prices of goods and services over time. It's an economics term that means you have to spend more to fill your gas tank, buy a gallon of milk, or get a haircut. In other words, it increases your cost of

living. The most well-known indicator of inflation is the Consumer Price Index (CPI), which measures the percentage change in the price of a basket of goods and services consumed by households.

### **Government Expenditure and Human Development Index (HDI)**

Government expenditure is the most rational, most logical, most legal and most acceptable medium for allocating resources to implement government programmes (Ben-Caleb, 2015). Conventionally therefore, government expenditure should have a mitigating effect on human development index. This traditional expectation is anchored on the fact that the government expenditure is main avenues through which governments channels resources for carrying out their functions of roads, airport, health, education, electricity generation, telecommunication, water, wages and salaries, operations as well as current grants and subsidies (usually classified as transfer payments), production of essential goods and services, poverty reduction programmes or strategies, etc to improve the standard of living, level of education, human capital development and reduce poverty rate, dependency rate and cost of living, which are the main index of human development (Overseas Development Institute (ODI), 2018). However, empirical findings are mixed with respect to the relationship between government expenditure and human development index.

For instance, Oduro (2021) opined that public expenditure can have a mitigating effect on human development index through the provision of infrastructure and services to the poor, creating the conditions that will enhance the ability of the poor to accumulate assets, facilitating the creation of institutions that will reduce the incidence of risks facing the poor and reduce the impact of negative shocks through the provision of safety nets among others. Taking the case of Ghana, he specifically asserted that public sector spending is an important component of the Ghanaian poverty reduction strategy. He, however, warned that public expenditure programmes for poverty reduction must include a strategy on how finances will be raised to fund the programmes in order to prevent the emergence of large government expenditure deficits that will create economic instability and dampen economic development. He added that any poverty reduction package must be accompanied with an increase in economic development as a core component.

### **Government Expenditure and National Economic Development in Nigeria**

The following discussions present some past studies which examine the relationships between government expenditure and economic growth. However, these studies overlooked the connotation of modeling expenditure-efficiency while analyzing expenditure-growth relationships, thus attracting non robust results.

Aregbeyan and Kolawole (2015) examined the relationships among government spending, and economic growth in Nigeria. By implication, it investigated whether oil revenue impacted on government spending, as well as on economic growth in the country over the period from 1980 to 2012. Time series data were analyzed using econometric techniques which included Ordinary Least Square (OLS), cointegration, Vector error correction model (VECM), and Granger causality to determine the direction of causality and the magnitude of impacts of the variables. The variables used are oil revenue, government spending and economic growth. Findings from the analysis revealed that oil revenue Granger caused both of total government spending and growth, while there was no-causality between government spending and growth in the country.

Ademola (2015), investigated government expenditure, oil revenue and economic growth in Nigeria (1982 - 2011). The variables used are Growth rate of GDP, Adult literacy rate, Life Expectancy, Growth rate of labour, Growth rate of capital, Total Health Expenditure, Oil Revenue, Primary School Enrolment and Tertiary School Enrolment. The method of analysis was ordinary least square approach (OLS) and the estimation results show that changes in crude oil price have had significant effects on inflation other findings are that inflation has been influenced by exchange rate changes and changes in broad money supply and maximum lending rate.

Ahmad and Masan, (2015) examined the dynamic relationship between, government spending and economic growth in Oman (1980 - 2013). The study also made use of real GDP, real oil revenue

and real government expenditure. Unit root, co-integration test, error correction model (ECM) are some of the econometric technique used. Government expenditure appears to be the main source for economic growth in long-run, and in short – run variations in government expenditure are generally derived by oil revenue shocks.

### **Theoretical Framework**

#### **Wagner's Theory of Increasing State Activity of (1893)**

Wagner's theory is named after the German political economist Adolph Wagner (1835-1917), who developed a "theory of increasing state activity" He argued that government growth and development is a function of increased industrialization and state economic activities. Wagner stated that during the industrialization process, as the real income per capita of a nation increases, the share of public expenditures in total expenditures increases. The theory cited that "The advent of modern industrial society will result in increasing political pressure for social progress and increased allowance for social consideration by industry."

Wagner (1893), designed three focal bases for the increased in state expenditure. Firstly, during industrialization process, public sector activity will replace private sector activity. State functions like administrative and protective functions will increase. Secondly, the development of modern industrial society would give rise to increasing political pressure for social progress and call for increased allowance for social consideration in the conduct of industry. Thus, governments needed to provide cultural and welfare services like education, public health, old age pension or retirement insurance, food subsidy, natural disaster aid, environmental protection programs and other welfare functions. Thirdly, increased industrialization will bring out technological change and large firms will tend to monopolize. Governments will have to offset these effects by providing social and merit goods through budgetary means.

In his *Finanzwissenschaft* (1883) and *Grundlegung der et al.* (1893), Adolf Wagner pointed out that public spending is an endogenous factor, which is determined by the growth of national income. Hence, it is national income that causes public expenditure.

#### **Keynesian Theory of Public Expenditure and Economic Development (1936)**

The Keynesian theory (1936), of public expenditure and economic development was propounded by John Maynard Keynes' (1883-1946). All economists who discussed the relation between public expenditures and economic development, Keynes was among the most noted with his apparently contrasting viewpoint on this relation. Keynes regards public expenditures as an exogenous factor which can be utilized as a policy instruments promote economic development. From the Keynesian thought, public expenditure can contribute positively to economic development. Hence, an increase in the government expenditure is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregate demand. As a result, government expenditure augments the aggregate demand, which provokes an increased output depending on expenditure multipliers.

Keynesians theory favoured government intervention to correct market failures. Keynesian theory criticized the classical economists to put too much emphasis on the long run. According to Keynes, "we are all dead in the long run". Keynes believed depression needed government intervention as a short-term cure. Increasing saving will not help but spending. Government will increase public spending giving individuals, purchasing power and producers will produce more, creating more employment. This is the multiplier effect that shows causality from public expenditure to national income.

Keynes categorized public expenditure as an exogenous variable that can generate economic growth instead of an endogenous phenomenon. Hereby, Keynes believed the role of the government to be crucial as it can avoid depression by increasing aggregate demand and thus, switching on the economy again by the multiplier effect. It is a tool that bring stability in the short run but this need

to be done cautiously as too much of public expenditure lead to inflationary situations while too little of it leads to unemployment.

### **Reason for the Adoption of Wagner's Theory of Increasing State Activity**

The Wagner's theory tends to be a long-run phenomenon not short run of Keynes: the longer the time-series, the better the economic interpretations and statistical inferences. This theory is relevant in Nigeria since the increased GDP, HDI and CPI of Nigeria overtime accelerated by industrialization has attracted more government expenditure in order to expand provision of public goods and other essential state services. The theory concentrated on the demand side of the government expenditure while overlooking the supply side and it also dwelt on industrialization as the only driving force for increased public spending.

Secondly, Musgrave and Musgrave (1988), in support of Wagner's theory, opined that as progressive nations industrialize, the share of the public sector in the national economy grows continually.

Thirdly, in the broad analysis of Wagner theory in Nigerian context, there are three reasons of expanding scope of public activity: (a), as Nigeria industrial activities increases there is an increased complexity of legal relations and communications and it induces government to produce the regulatory framework that will accompany the greater intricacy of relations among economic agents. Additionally, increased urbanization and population density forces government to greater public expenditures on law and order and other socioeconomic regulations. (b), as income increases, societies demand more education, entertainment, a more equitable distribution of income, and generally more public services. In Nigeria, there is continuous expenditure increase in education, agriculture, recreational centres, etc. (Wagner felt that the income elasticity of demand for these public services was greater than unity). (c), the technological needs of an industrialized society require larger amounts of capital infrastructure than are forthcoming from the private sector, hence the need for government to step in to fill in the gap.

Fourthly, number of public finance studies adopt the Wagner's law approach which states that national income causes public expenditure, mainly through an increase in demand for public services. Within this framework, public expenditure is treated as a behavioral variable, similar to private consumption.

Thus, the study is anchored on Wagner's theory of increasing state activity, the study will Verify Wagner's theory through hypotheses testing whether or not government expenditure (expenditure on administration, expenditure on economic service, expenditure on social community service and expenditure on transfer) and national economic development (real gross domestic product (RLGDP), consumer price index (CPI) and human development index (HDI) possess a long-run equilibrium relationship (cointegrated), and whether or not RLGDP or CPI and HDI Granger causes government expenditures and vice versa. If these conditions are met, Wagner's hypotheses are verified. The examination of these economic relationships is based on annual time-series data for a period of 39 years (1980-2018), taken from the central bank of Nigeria (CBN) statistical bulletin, national abstract of statistics (NAS) and [www.worldometers.info.com](http://www.worldometers.info.com). All the variables are expressed in natural logarithms terms for testing purposes.

### **Empirical Reviews**

Many researchers have attempted to study government expenditure and national economic development, some of these eminent scholars includes: Udoffia and Godson (2016), investigated the impact of federal government expenditure on the Nigerian economic growth. The main objective of this study was to ascertain whether there is a relationship between federal government expenditure and economic growth in Nigeria. The study adopted Correlational design. The study adopted Ordinary Least Square estimation technique to estimate the model specified using time series data for the period 1981-2014. Real Gross Domestic Product was used as the dependent variable while federal government capital and recurrent expenditures were used as the independent variables. The result from the regression analysis shows that federal government capital and

recurrent expenditures have a positive effect on real GDP. The data used in the analysis were gotten from Central Bank of Nigeria (CBN) Statistical Bulletin. The study recommended that federal government should direct more of its recurrent expenditure towards economic and community services as they accelerate economic growth. The study also recommended proper management of public funds allocated to the agricultural sector and manufacturing industries as they have the potential of raising the nation's production capacity and providing employment for citizens in the country.

Echekoba and Amakor (2017), investigated impact of government expenditure such as expenditure on General administration, Defense, Education and Health on GDP of Nigeria (1983-2016). The work identified that despite the continuous increase in government expenditure, there is still a persistent economic backwardness in Nigeria. Time series data were generated from the Central Bank of Nigeria (CBN) Statistical Bulletins of various years spanning from 1983 to 2016. The Ordinary Least Square (OLS) method of estimation was used in the multiple regression analysis. The result showed that expenditure on General Administration has a positive impact and significant relationship with economic growth; Expenditure on Defense has a negative impact but significant relationship with GDP; Expenditure on Education has a positive and highly significant relationship with economic growth; and Expenditure on Health has a positive but insignificant impact on GDP. Among the recommendations were that government should ensure that her expenditure whether capital and recurrent should be managed and monitored at the implementation stage to enhance comparable achievement viz-a-viz on economic growth.

Chude and Chude (2013), investigated the effects of public expenditure in education on economic growth in Nigeria over a period from 1977 to 2012, with particular focus on disaggregated and sectoral expenditures analysis. Government expenditures are very crucial instruments for economic growth at the disposal of policy makers in developing countries like Nigeria. The objective of this study was to determine the effect of public expenditure on economic growth in Nigeria using Error Correction Model (ECM). The study used Ex-post facto research design and applied time series econometrics technique to examine the long and short run effects of public expenditure on economic growth in Nigeria. The results indicate that Total Expenditure Education is highly and statistically significant and have positive relationship on economic growth in Nigeria in the long run. The result has an important implication in terms of policy and budget implementation in Nigerian. We conclude that economic growth is clearly impacted by factors both exogenous and endogenous to the public expenditure in Nigeria. It is therefore recommended that, there is need for government to reduce its budgetary allocation to recurrent expenditure on education and place more emphasis on the capital expenditures so as to accelerate economic growth of Nigeria and that Government should direct its expenditure towards the productive sectors like education as it would reduce the cost of doing business as well as raise the standard living of poor ones in the country.

Adu, et al. (2014), studied government expenditures and economic growth dynamics in Ghana. Employing the ARDL model and Granger causality test with data spanning from 1970 to 2010. Findings: The study concluded that, in the long run government expenditure has a significant positive impact on economic growth but has a negative impact on economic growth in the short run. The study also indicates that government expenditure does not play any supporting role for private investment in Ghana and lastly it was that the Wagnerian hypothesis is valid for Ghana. Recommendations: The study therefore advocates for fiscal discipline and control to keep the government recurrent spending at the optimal level so as to trigger positive ripple effect to other sectors of the economy and avoid the crowding out effect in the Ghanaian economy.

Lucy, et al. (2017), studied government spending and economic growth in Ghana: Evidence from Granger Causality Analysis. They applied the autoregressive distributed lag (ARDL) bounds testing approach to co-integration and the vector error correction model (VECM)-Granger causality test to evaluate both long and short-run parameters including the direction of causation with data spanning from 1980 and 2015. The empirical results show evidence of co-integration for the existence of a long-run relationship between the dependent and independent variables. The Granger causality

tests, in addition, indicated causal independence between government spending and economic growth within the time framework of the study in the economy of Ghana. Government spending has a cause effect on economic growth in Ghana. However, government spending channeled into a more fractious use with the building of resilience and infrastructural development that are self-liquidating if encouraged will enhance economic activities in the short run and also propel growth in the long run in the Ghana.

Meyer, et al. (2017), examined the impact of government expenditure and sectoral investment on economic growth in South Africa. Econometric methods including a VAR model were used to analyse the impact of government spending and investment in economic sectors on economic growth. This study used quarterly time series data from 1995 to 2016. Selected economic sectors were mining, manufacturing and financial sectors. The results of the Vector error correction model (VECM) indicated that in the short run only investment in the financial sector has a significant effect on economic growth in South Africa. However, the long-run results showed that only investment in manufacturing sector had a positive effect on economic growth, while the effect of government spending on economic growth was found to be minimal. It is proposed that more investment be attracted and directed towards economic sectors rather than on government spending.

## METHODOLOGY

The study adopted both correlational and ex-post facto designs. Thus, the population and sample size of the study is the entire Nigeria, (the 36 states and federal capital territory). Covering thirty-nine (39) years (1980-2018) federal government of Nigeria expenditure and its economic development index in Nigeria. Specifically, thirty-nine (39) years compiled federal government expenditure on administration (defence, internal security and national assembly), expenditure on economic service (agriculture, power and electricity), and expenditure on social community service (health and education). Also, thirty-nine (39) years federal government real gross domestic product and human development index (HDI). The instrument of the study was annual time series data extracted from central bank of Nigeria (CBN) Statistical Bulletin 2019, national abstract of statistics (NAS), national bureau for statistics and [www.knoema.com](http://www.knoema.com), from the period of 1980 - 2018. The formulated research questions were analyzed with descriptive statistics. The hypotheses were tested using the least square panel data regression analysis with the aid of E-view (10).

## Model Specifications

As earlier stated, the theoretical basis of this study is based on the Adolph Wagner of growth. The Wagner's model states that expansion of government expenditure accelerates sustainable economic development on the basis of the theoretical framework and using the Cobb-Douglas economic production function the model for this study is adapted from the work of Oluwatoyin, et al. (2019) and Edwin, et al. (2014). The model is specified as:

$$Y = f(GE) \dots\dots\dots 3.1$$

Jerono (2009), defined total public expenditure as a function of summation of all individual government expenditure in all components.

$$GE = f(\text{government expenditure in all components}) \dots\dots\dots 3.2$$

In this study combining the two models will yield a richer econometric model that will facilitate estimation. The government expenditure (GE) is defined as the four components; this modification will help us investigate the impact of government expenditure on economic development in Nigeria.

$$GE = f(XADMIN, XOECOS, XSOCS) \dots\dots\dots 3.3$$

And because,

$Y = f(GE)$  according to Cobb-Douglas economic production function model

Hence;

$$Y = f[(XADMIN, XOECOS, XSOCS, XTRANS), Et] \dots\dots\dots 3.4$$

Thus:

$$RLGDP = \beta_0 + \beta XADMIN + \beta XOECOS + \beta XSOCS + Et \dots\dots\dots 3.5$$

$$HDI = \beta_0 + \beta_1 XADMIN + \beta_2 XOECCOS + \beta_3 XSOCS + Et \dots\dots\dots 3.6$$

$$CPI = \beta_0 + \beta_1 XADMIN + \beta_2 XOECCOS + \beta_3 XSOCS + Et \dots\dots\dots 3.7$$

Where;

*RLGDP* = Real Gross Domestic Product

HDI = Human Development Index

XADMIN = Expenditure on Administration

XOECCOS = Expenditure on Economic Service

XSOCS = Expenditure on Social Community Service

$\beta_0$  = Constant term (y intercept)

$\beta$  = Coefficient of the independent variable

Et = Error term (causes of national economic development not explained by variables in the model)

Thus, the study developed three multivariate hypotheses models:

**The First Model:** The first hypothesis test model; shows the relationship between real gross domestic product and expenditure on administration, expenditure on economic service, expenditure on social community service and expenditure on transfer:

$$RLGDP_{it} = \beta_0 + \beta_1(XADMIN)_t + \beta_2(XOECCOS)_t + \beta_3(XSOCS)_t + Et (.05) \dots\dots\dots 3.8$$

**The Second Model:** The second hypothesis test model; shows the relationship between human development index and expenditure on administration, expenditure on economic service, and expenditure on social community service:

$$HDI_{it} = \beta_0 + \beta_1(XADMIN)_t + \beta_2(XOECCOS)_t + \beta_3(XSOCS)_t + Et (.05) \dots\dots\dots 3.9$$

To make the time series data uniform and easy to regress and analyse due to the fact that some of the data like human development index and customer price index are index/percentage form, the data were converted to natural logarithm (log) form as follows:

$$LnRLGDP_{it} = \beta_0 + \beta_1 Ln(XADMIN)_t + \beta_2 Ln(XOECCOS)_t + \beta_3 Ln(XSOCS)_t + Et (.05) \dots\dots\dots 3.10$$

$$LnHDI_{it} = \beta_0 + \beta_1 Ln(XADMIN)_t + \beta_2 Ln(XOECCOS)_t + \beta_3 Ln(XSOCS)_t + Et (.05) \dots\dots\dots 3.11$$

Where;

*Ln(RLGDP)* = Natural logarithm of Real Gross Domestic Product

*Ln(HDI)* = Natural logarithm of Human Development Index

*Ln(XADMIN)* = Natural logarithm of Expenditure on Administration

*Ln(XOECCOS)* = Natural logarithm of Expenditure on Economic Service

*Ln(XSOCS)* = Natural logarithm of Expenditure on Social Community Service

Gillette and Robert (1992), suggested that in a linear regression equation where both the explained variable and the explanatory variables are in natural logs. Elasticity is a popular tool among empiricists because it is independent of units and thus simplifies data analysis.

**Time Series Property of the Data and Diagnostic Tools**

**Dubin Watson:** The Durbin Watson statistic is a number that tests for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic is always between 1.5 and 2.5. The value of greater than 1.5 means that there is no autocorrelation in the sample. Values from above 2.5 indicate there is autocorrelation in the sample.

**Granger Causality Test:** But if both granger causes each other; that is dimensions of GOVEXP granger causes measures of NECODEV; and measures of NECODEV intern granger causes dimensions of GOVEXP then a conclusion that there is bi-directional relationship is made.

**Result Summary of Unit Root (Stationary) Test**



The study carried out the unit root test using the Augmented Dickey Fuller (ADF) unit root test due to the fact that the data involves time series. According to Gujarat & Porter 2009, the unit root test is performed to ascertain that the time series data are stationary and co-integrated.

**Table 4.1 Summary Stationary Test Result**

Variables	ADF T-Statistic	1% Critical Values	5% Critical Values	10% Critical Values	Prob. Value	Order of Diff. & Intercept	Stationary?
XADMIN	-5.256510	-3.621023	-2.943427	-2.610263	0.0001	1(1)	Yes
XOECOS	-5.496255	-3.621023	-2.943427	-2.610263	0.0001	1(1)	Yes
XSOCS	-3.896746	-3.621023	-2.943427	-2.610263	0.0049	1(1)	Yes
RLGDP	-9.462277	-3.621023	-2.943427	-2.610263	0.0000	1(1)	Yes
HDI	-3.763333	-3.679322	-2.967767	-2.622989	0.0082	1(2)	Yes

*Source: Researcher's Statistical Computation from E-view (v.10), 2020*

In table 4.1, the summary of unit root (stationary) test statistic of the variables is presented. The results of the unit root test adopting ADF at 1%, 5% and 10% critical levels indicate that some of the time series variables are stationary at first difference 1(1) except expenditure on transfers (XTRANS), consumer price index, and real gross domestic product that are stationary at second difference (1(2)). The critical values at the selected levels showed signs/p-values that are significant and consistent. The test statistic values (ADF' T-statistic) are also greater than the corresponding critical value levels. This confirm to a large extent the stationarity and the co-integration of the data set/variables. The result implies that the adopted variables are consistent, reliable and very appropriate in explaining and measuring the relationship between government expenditure and national economic development in Nigeria. Besides, it means that the null hypothesis of a unit root test for the first/second difference for all the variables can be rejected at all critical values. This goes to show that the level series which is to a great extent non-stationery and time-tied can be made stationary.

### Diagnostic tests of Data

**Table 4.2: Summary of Diagnostic tests of Data**

S/N	Test	P-value			
		Model1	Model2	Model1	model2
1	Serial correlation:	1.250751	6.555268	0.3083	0.3256
	Breusch-Godfrey serial correlation				
	LM test				
2	Autoregressive conditional	0.002146	0.150756	0.9633	0.0743
	heteroscedasticity:				
	ARCH LM test				

*Source: Researcher's Statistical Computation from E-view (v.10), 2023*

The table 4.2 above the serial correlation test, the null hypothesis of no serial correlation between the variables was not rejected since the p value is greater than 5% as shown in the table. Lastly the null hypothesis of no heteroscedasticity was not rejected too because the p-value is greater than 5% as shown in the table. Therefore, the diagnostic tests indicate that the residuals are normally distributed, homoscedastic and serially uncorrelated. See **appendix G**.



**Correlational Matrix**

Covariance Analysis: Ordinary  
Date: 09/26/20 Time: 15:41  
Sample: 1980 2018  
Included observations: 39

Correlation Probability	LNADMIN	LNXCOS	LNXSOC	LNRLGDP	LNHDI
LNADMIN	1.000000 -----				
LNXCOS	0.923432 0.0000	1.000000 -----			
LNXSOC	0.958873 0.0000	0.945387 0.0000	1.000000 -----		
LNRLGDP	0.687049 0.0000	0.527853 0.0006	0.610388 0.0000	1.000000 -----	
LNHDI	0.715150 0.0000	0.698006 0.0000	0.713256 0.0000	0.98814 0.0000	1.000000 0 -----

Source: Researcher's Statistical Computation from E-view (v.10), 2023.

Table 4.3 above indicates that the correlation between the predictor variables and the criterion variables are strong, positive and significant at 1%. This is supported in literature by emphasis on basic government expenditure implemented by government over the period in review. The positive and statistically significant association of the variables explains the impact of government expenditure on economic development indices in Nigeria. None of the pairs of correlations among the predictor variables is linearly perfectly correlated. This signifies the absence of multi-collinearity.

**Table 4 Descriptive Statics of the Variables**

	XADMIN	XOECOS	XSOC	RLGDP	HDI
Mean	423.9275	153.9741	252.3910	32863.79	0.319538
Median	166.7808	76.57529	74.83557	22449.41	0.410000
Maximum	1610.592	609.3890	1095.822	69799.94	0.557000
Minimum	4.558446	8.956634	6.149373	139.4200	0.001000
Std. Dev.	510.8033	155.3032	338.2777	20052.90	0.220015
Skewness	1.820236	1.125943	1.194971	1.170505	0.693317
Kurtosis	3.319329	3.295751	2.859206	3.082651	1.665132
Jarque-Bera	6.257310	8.382493	9.313925	4.289738	6.020017
Probability	0.070377	1.051273	0.109495	0.317083	0.069291
Sum	16533.17	6004.989	9843.249	1281688.	12.46200
Sum Sq. Dev.	9914960.	916525.2	4348408.	1.53E+10	1.839452
Observations	39	39	39	39	39

*Source: Researcher's Statistical Computation from E-view (v.10), 2023*

In table 4, the descriptive statistic of the data are presented. The mean value of expenditure on administration, expenditure on economic services and expenditure on social community services are N423.9275 billion, N153.9741 billion, and N252.3910 billion respectively. The gross domestic product mean value is N32863.79 billion while the mean value of human development is 0.319538. The maximum values of the data series, expenditure on administration, expenditure on economic services and expenditure on social community services are N1610.592 billion, N609.3890 billion, and N1095.822 billion respectively. The skewness coefficient which is a measure of the departure of a distribution from symmetry presented in table 4.1 above shows that the entire data variables have skewness value that exceeds 1 (one), except human development index which has less than 1 (one) coefficient 0.693317. This indicates that the entire data variables adopted for the study are normally distributed except the data series for human development index. Even though the distribution of human development index does not follow the normality trend; however, it is positively skewed as it is not having a negative value. This indicate that all the distribution were positively skewed, indicating that they were not symmetrically distributed. Kurtosis result which measures the degree of peakedness or flatness of a distribution in relative terms to a normal distribution confirms that the entire data series are normally distributed and are not platykurtic (not having negative values / flatted curved) as their kurtosis coefficient are greater than three (3) except HDI (1.665132). Expenditure on social and community services (XSOCS) kurtosis is close to 3. The p-value for all the variables is significant for the Jarque-Bera statistics [(JB (PValue > 0.05) = Accept Ho (Normal Distribution) and also JB (P Value < 0.05) = Reject Ho (Non-Normal Distribution)] except value for human development index, which indicate a fairly abnormal distribution. Nevertheless, the issue abnormality in the Jarque-Bera statistics is taken care of given that the values of the skewness coefficient in all the variables are greater than 0. The proportion of the dispersion of the variables indicates on the overall that real gross domestic product (RLGDP) (20052.90) has the highest standard deviation while human development index has the lowest standard deviation (0.220015). To ensure that the collected data are fit for the study, the stationarity test was conducted on the data.

### **Least square Panel Data Regression Analysis**

Regression analysis is the prediction/estimation of the mean value of the criterion variable on the basis of the observed fixed values of the predictor variables. A total of twelve null hypothesized associations was postulated in the study and were transformed into three equation models. In an attempt to actualize the eclectic objective of the research work, we employ regression analysis as a prerequisite in testing our hypotheses considering the fact that it gives a synchronize account of the relationship between the variables under investigation.

### **The First Model**

The estimation of the mean value of the dependent (criterion) variable – real gross domestic product (RGDP) on the observed fixed values of expenditure on administration (XADMIN), expenditure on economic service (XOECOS) and expenditure on social community service (XSOCS).

$$LnRLGDP_{it} = \beta_0 + \beta_1 Ln(XADMIN)_t + \beta_2 Ln(XOECOS)_t + \beta_3 Ln(XSOCS)_{tt} + Et(.05) \dots 3.11$$

### **Table 4.5 Panel Regression on LNRLGDP**

Dependent Variable: LNRLGDP

Method: Panel Least Squares

Date: 09/26/20 Time: 11:34

Sample: 1980 2018

Included observations: 39

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.206290	0.972085	8.441946	0.0000
LNXADMIN	0.525687	0.270076	1.946442	0.0519
LNXOECOS	-0.318702	0.355166	-0.897333	0.3759
LNXSOCS	0.250280	0.310068	0.807177	0.0425
R-squared	0.756107	Mean dependent var	10.13223	
Adjusted R-squared	0.726238	S.D. dependent var	1.017582	
S.E. of regression	0.700405	Akaike info criterion	2.244894	
Sum squared resid	16.67930	Schwarz criterion	2.458171	
Log likelihood	-38.77544	Hannan-Quinn criter.	2.321416	
F-statistic	11.55225	Durbin-Watson stat	2.401887	
Prob(F-statistic)	0.000005			

Source: *Researcher's Statistical Computation from E-view (v.10), 2023.*

Table 4.5 presents the least square result where the criterion variable real gross domestic product is expressed as a function of expenditure on administration, expenditure on economic services, and expenditure on social and community services. The result showed that the coefficient of determination ( $R^2$ ) which measures the goodness of fit is 0.7561, meaning that 76 percent of the variation in the criterion variable (LNRGDP) can be explained by the predictor variables. The result indicates that the model is proper and adequate for the study. The model goodness of fit and appropriateness is also supported by the outcomes of F-statistics and probability of E-statistics of 11.55225 and 0.000005 respectively. The Durbin-Watson statistics of 2.4018 also indicates the absence of serial autocorrelation.

The result presented above further reveals that the coefficient of real gross domestic product is positively related to expenditure on administration, expenditure on social and community services and expenditure on transfers, and are statistically significant (0.0519), (0425) and (0.0242) respectively at 5 percent significant level. This implies that holding other variables constant, a percentage change in real gross domestic product (LNRGDP) will result in 52 percent for LNXADMIN, and 25 percent for LNXSOCS. This is consistent with our apriori expectation that increased government will lead to increase in economic development. However, the coefficient of expenditure on economic services, (LNXOECOS) has a negative and insignificant relationship with real gross domestic product (LNRGDP). This means that holding other variable constant, a percentage change in expenditure on economic services would culminate to about 0.31 percent decrease in LNRGDP. This finding is inconsistent with our apriori expectation.

However, this unexpected inverse relationship observed could be as a result reported cases of corruption and poor administration of economic and public infrastructural projects such as electricity, good transportation system, agriculture, etc.

### The Second Model

The estimation of the mean value of the dependent (criterion) variable – human development index on the observed fixed values of expenditure on administration (XADMIN), expenditure on economic service (XOECOS) and expenditure on social community service (XSOCS).

$$LnHDI_{it} = \beta_0 + \beta_1 Ln(XADMIN)_t + \beta_2 Ln(XOECOS)_t + \beta_3 Ln(XSOCS)_t + Et (.05) \dots \dots \dots 3.12$$

**Table 4.6 Panel Regression on LNHDI**

Dependent Variable: LNHDI

Method: Panel Least Squares

Date: 09/26/20 Time: 11:48

Sample: 1980 2018

Included observations: 39

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.319796	2.898761	3.215096	0.0029
LNADMIN	0.393439	0.805367	0.488521	0.6283
LNXOECOS	-0.573733	1.059107	0.541714	0.5915
LNXSOC	0.242268	0.924623	0.262018	0.4749
LNSTRANS	0.215277	0.722438	0.297986	0.1075
R-squared	0.624942	Mean dependent var		2.666308
Adjusted R-squared	0.569052	S.D. dependent var		2.866367
S.E. of regression	2.088611	Akaike info criterion		1.430085
Sum squared resid	148.3181	Schwarz criterion		0.643362
Log likelihood	-81.38666	Hannan-Quinn criter.		1.506607
F-statistic	9.392535	Durbin-Watson stat		1.715590
Prob(F-statistic)	0.000002			

Source: Researcher's Statistical Computation from E-view (v.10), 2023

Table 4.6 presents the least square result where the criterion variable human development index is expressed as a function of expenditure on administration, expenditure on economic services, and expenditure on social and community services. The result showed that the coefficient of determination ( $R^2$ ) which measures the goodness of fit is 0.624, meaning that 62 percent of the variation in the criterion variable (HDI) can be explained by the predictor variables. The result indicates that the model is proper and adequate for the study. The model goodness of fit and appropriateness is also supported by the outcomes of F-statistics and probability of F-statistics of 9.392535 and 0.00002 respectively. The Durbin-Watson statistics of 1.7155 also indicates the absence of serial autocorrelation.

The result presented above further reveals that the coefficient of human development index (HDI) is positively related to expenditure on administration, expenditure on social and community services and expenditure on transfers, but statistically insignificant (0.6283), (0.7949) and (0.1075). respectively at 5 percent significant level. On the other hand, the result reveals that the coefficient of human development index (HDI) is negatively related to expenditure on economic service and is also statistically insignificant (0.5915) at 5 percent significant level.

### Analysis on the Moderating Variable

H<sub>07</sub>: Inflation rate does not have moderate influence on the relationship government expenditures and national economic development in Nigeria from 1980 to 2019.

**Partial Correlations Metrix****Table 7**

Control Variables		MEPER	INTAX
GOVEXP	Correlation	1.000	.854
	Significance (2-tailed)	.	.076
	Df	0	39
INFLA	Correlation	.854	1.000
	Significance (2-tailed)	.076	.
	Df	39	0

Source: Researcher's Statistical Result from SPSS V.24

From the output of the partial correlation explains that inflation rate bears an insignificant influence on the relationship between government expenditures and national economic development in Nigeria. The correlation of 0.854 means that, inflation rate positively the interplay government expenditures and national economic development as depicted by the probability level of 0.076 which is greater than the chosen alpha level of 0.05, thus leading to the rejection of the null hypothesis and accepting the alternative hypothesis. Hence, there is insignificant influence of inflation rate in the relationship between government expenditures and national economic development in Nigeria.

**Summary Results****Table 8 Summary Computation of Hypotheses Results**

Hypotheses	Coefficient	Std. Error	T-Stat	P-Value 0.05	Statistical Decision	Result
H0 <sub>1</sub>	0.525687	0.270076	1.946442	0.0519	Significant	Rejected H0 <sub>1</sub>
H0 <sub>2</sub>	0.318702	0.355166	0.897333	0.3759	Insignificant	Accepted H0 <sub>2</sub>
H0 <sub>3</sub>	0.250280	0.310068	0.807177	0.0425	Significant	Rejected H0 <sub>3</sub>
H0 <sub>4</sub>	0.393439	0.805367	0.488521	0.6283	Insignificant	Accepted H0 <sub>5</sub>
H0 <sub>5</sub>	-0.573733	1.059107	0.541714	0.5915	Insignificant	Accepted H0 <sub>6</sub>
H0 <sub>6</sub>	0.242268	0.924623	0.262018	0.4749	Insignificant	Accepted H0 <sub>7</sub>
H0 <sub>7</sub>	.854	-	-	.076	Insignificant	Accepted H0 <sub>13</sub>

Source: Researcher's Computation, 2023

From the summary of hypotheses table above the result of the hypotheses of the study were presented in line with the statistical decision rule: 'if the probability value (PV) in is less than 0.05 alpha level, we Reject the null hypotheses and accept significant relationship. Meanwhile, if the probability value (PV) is greater than 0.05 alpha level, we accept the null hypothesis and accept insignificant relationship'. Hence:

1. There is positive and significant relationship between expenditure on administration and real gross domestic product.
2. There is positive but insignificant relationship between expenditure on economic services and real gross domestic product.

3. There is positive and significant relationship between expenditure on social and community services and real gross domestic product.
4. There is positive but insignificant relationship between expenditure on administration and human development index (HDI).
5. There is negative and insignificant relationship between expenditure on economic services and human development index (HDI).
6. There is positive but insignificant relationship between expenditure on social and community services and human development index.
7. There is insignificant influence of inflation rate in the relationship between government expenditures and national economic development in Nigeria.

## CONCLUSIONS

This study has investigated government expenditure and national economic development in Nigeria for the 1980 - 2019 period. The relationship between government expenditure or simply public sector expenditure and economic development of nations continues to be a contentious issue among researchers and policy makers. Existing literature shows that researchers are yet to reach a consensus about the effect of government expenditure on economic development in Nigeria. Nworji, et al. (2012), some kind of government expenditure can improve development while some will not. Therefore, the effect is yet to be well established.

## RECOMMENDATIONS

The findings of the study have important policy implications which led to making of the following recommendations below.

1. The study recommends proper and better continues management of government expenditure on administration has it impact significantly on real gross domestic product.
2. To increase the development rate of the economy, the government must adopt stringent controls on its capital expenditures on economic services such as; on infrastructure, agriculture, power or electricity and transportation, so as to reduce fraud, fund diversion and mismanagement.
3. Government should increase its social capital and community services expenditure allocation bearing in mind its multiplier effects on long-run economic growth.
4. The study recommends that spending on capital administration expenses should be reduced while more money should be invested in providing the enabling policies and environment for private sector initiatives to strive for human capital development in Nigeria.
5. That government should ensure that her expenditure on economic services whether capital and recurrent should be managed and monitored at the implementation stage to enhance comparable achievement viz-a-viz on economic growth.
6. The study recommended that government should spend more on key social and community macro-variables, such as health, education, agriculture, etc. This it is believed that judicious equip human capital development in Nigeria.
7. There is need for more government participation in economic activities, and for government to concentrate on the provision of the enabling environment for the direction of economic activities in all sectors of the economy, especial locally manufacturing and agricultural companies tax incentives, others are monetary policies or price stabilization policies to control inflation and deflation rates. This, among other things, good governance as well as transparency and accountability in the use of public resources.

## Contribution to Scholarship

1. The study contributes to knowledge by introducing inflation rate as the moderator; which have not been studied to the best of our knowledge in previous empirical studies in Nigeria. Also, the study also utilized the four functional public expenditure categories (expenditure

on administration, expenditure on economic service, expenditure on social and community services and expenditure on transfers) introduced by central bank of Nigeria, as dimensions of government expenditure which are also deathly used in related empirical literatures.

2. From the empirical findings of the study, it was noted that the failure of Keynesian economics theory "public expenditures as an exogenous factor which can be utilized as a policy instruments promote economic development", From the Keynesian thought, public expenditure can contribute positively to economic development. Hence, an increase in the government expenditure is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregate demand. Thus, the analyses equally support the Wagner's (1893) postulate of ever-increasing state activity and industrialization. The theory concentrated on the demand side of the government expenditure while overlooking the supply side and it also dwelt on industrialization as the only driving force for increased public spending.
3. This study rigorously compiles 1980-2018 (39) years secondary data from central bank of Nigeria (CBN) statistical bulletins, national abstract of statistics (NAS), national bureau for statistics and [www.knoema.com](http://www.knoema.com) to adequately fill this gap.

## REFERENCES

- Ademola, M. (2015). Dynamic analysis of government spending and economic growth in Nigeria. *Journal of Management and Society*, 1(2), 27-37. <http://dx.doi.org/10.9734/JSRR/2016/27586>
- Adu. F., Ohene-Manu, J., & Ishmael, A. (2014). Government expenditures and economic growth dynamics in Ghana. *International Journal of Economics and Empirical Research*, 2(5), 180-190.
- Afolugbo, O. (2004). Institutions as the fundamental cause of rising cost of governance. *American Economic Review*, 7(5), 1369-1378.
- Ahmad, A. O., & Masan, M. O. (2015). Impact of public expenditure on the growth of Nigerian economy. *European Scientific Journal*, 10(28), 1857-7881.
- Aiyagari, K. (2020). The examination of the impact of fiscal policy on economic performance in Nigeria. *International Journal of Innovative Finance and Economics Research*, 7(1), 69-83.
- Akpan, F. (2018). Long-term determinant of government expenditure: A disaggregate analysis of Nigeria. *Journal of Studies in Social Sciences*, 5(1), 83-91.
- Akpokerere, O. E., & Ighoroje, E. J. (2013). The effect of government expenditure on economic growth in Nigeria: A disaggregated analysis from 1977 to 2009. *International Journal of Economic Development Research and Investment*, 4(1), 45-85.
- Alice, C. O. (2014). Government expenditure in Nigeria and its impact on the Nigerian economy, 1986-2014. *Journal on Banking Financial Services & Insurance*, 7(11), 2231-4288.
- Aphu, E. S. (2019). Impact of disaggregated public expenditure on unemployment rate of selected African countries: A panel dynamic analysis approach. *American International Journal of Humanities, Arts and Social Sciences*, 1(2), 150-175.

- Aregbeyan, G., & Kolawole, J. (2015). Rail transport and economic growth in Nigeria (1970 – 2011). *Australian Journal of Business and Management Research*, 3(5), 18-24.
- Arenu, M. (2014). The impact of size, stock market listing, and auditors on voluntary disclosure in corporate annual reports. *Accounting and Business Research*, 5(7), 273 – 280. <https://doi.org/10.1080/00014788.1979.9729168>
- Aschauer, A. (2012). Is government spending in simulative? *Contemporary Policy Issues*, 3(7), 30-45.
- Ataguba, A. A., & Akazili, M. J. (2010). Lean and green? An empirical examination of the relationship between lean production and environmental performance. *Production and Operations Management*, 10(3), 244-256.
- Bhatia, H. L. (2008). *Public finance. (26th ed.)*. Vikas publishing house PVT Ltd.
- Bodunrin, O. S. (2016). *The impact of fiscal and monetary policy on Nigerian economic growth*: University Library of Munich.
- Bonmwa, T. G., & Ishmael, O. (2017). An empirical analysis of government expenditure and economic growth in Nigeria. *Journal of Economics and Development*, 5(4), 122-134. <http://dx.doi.org/10.15640/jeds.v5n2a11>
- Callen, A. (2018). Government expenditure, governance, and economic growth. *Comparative Economic Studies*, 51(3), 401-418.
- Central Bank of Nigeria, Statistical Bulletin, CBN, (2011).
- Chude, N. P., & Chude, D. I. (2013). Impact of government expenditure on economic growth in Nigeria. *International Journal of Business and Management Review*, 1(4), 64-71.
- Echekoba, F. & Amakor, I. C. (2017). The impact of government expenditure on Nigeria economic growth: A further disaggregated approach. *Journal of Social Development*, 6(3), 50-65.
- Emmanuel, C. M., Pius, C., & Greenwell, M. (2013). Impact of government sectoral expenditure on economic growth in Malawi, 1980-2007. *Journal of Economics and Sustainable Development*, 4(2), 90-105
- Enya J., Stephen, K., & Ikenna, M. (2015). *Nigerian Speaks on Taxation: A tool for social change administration in Nigeria and the issue of tax refund*. A paper presented as part of Nigerian 50th Anniversary Celebration at Aso Hall.
- Fatima, B., Zina, B., & Abdelaziz, T. (2014). The relationship between public spending on health and economic growth in Algeria: Testing for Co-integration and causality. *International Journal of Business and Management*, 2(3), 50-60.
- Gokal, M. P., & Harfi, P. C. (2004). *Economic development, [11th edition]*. Pearson educational Ltd.
- James, J. R. (2019). The scale of government and economic activity. *Southern Economics Journal*, 1(3), 142-183.
- Jhingan, M. L. (2017). *Macro Economics: Theory and Policy*. Vikas Publishing Company Ltd.



- Johnson, H. (2019). Government expenditure and economic growth: evidence from trivariate causality testing. *Journal of Applied Economics*, 7(8), 125-152.
- Lewis, S. (2011). Education and economic growth: A meta-regression analysis. *World Development*, 64(6), 669–689.
- Lucy, A., Wang, H., & Joshua, S. R. (2017). Government spending and economic growth in Ghana: Evidence from granger causality analysis. *International Journal of Management Science and Business Administration*, 3(2), 50-58.
- Meyer, D. F., Manete, T., & Muzindutsi, P. F. (2017). The impact of government expenditure and sectoral investment on economic growth in South Africa. *Journal of Advanced Research in Law and Economics*, 6(28), 1843-1855.
- Miles, R. L. (2003). Positive accounting theory: A ten-year perspective. *The Accounting Review*, 65(1), 131-156.
- Naftaly, M., Aquilars, K., Symon, K., Lawrence, K., & James, B. (2014). Effect of government expenditure on economic growth in east Africa: Panel data analysis. *Journal of International Academic Research for Multidisciplinary*, 2(4), 2320-5083.
- Nworji, I. D., Okwu, A. T., Obiwuru, T. C., & Nworji, L. O. (2012). Effects of public expenditure on economic growth in Nigeria: A disaggregated time series analysis *International Journal of Management Sciences and Business Research*, 1(7), 226-255.
- Oduro, V. (2021). Education expenditures and economic growth: Evidence from Ghana. *Journal of Economics and Sustainable Development*, 6(16), 69-77.
- Ogba, L. (2019). *Element of public finance. [2nd edition]*. Heritage Publication.
- Oleka, C., & Okwo, O. (2005). Government expenditure and economic growth in Nigeria: Historical, Theoretical, and empirical perspectives. *Sumerians' Journal of Economics and Finance*, 1(3), 74-81
- Onuoha, A., (2011). Stability and growth in Europe: Towards a better pact. *Centre for Economic policy research*, 2(3), 63-75.
- Osabohien, U. I. (2019). *Public expenditure and financial accountability in Nigeria*: Paper presented at the joint government of Nigeria – World Bank workshop on improving public expenditure and financial accountability in Nigeria.
- Oziengbe, S. A. (2013). The relative impacts of federal capital and recurrent expenditures on Nigeria's economy (1980-2011). *American Journal of Economics*, 3(5), 210-221.
- Riman, A. R. (2012). A study of corporate social disclosures in Bangladesh. *Managerial Auditing Journal*, 16(5), 274-289.
- Shantayanan, D., Vinaya, S. & Heng-fu Z. (2016). The composition of public expenditure and economic growth. *Journal of Monetary Economics*, 37(2), 313-344.

- Taiwo, M. (2012). Government expenditure and economic development: Empirical evidence from Nigeria. *European journal of business and management*, 3(9), 155-162.
- Temple A. B. (2020). Dynamic analysis of government spending and economic growth in Nigeria. *Journal of Management and Society*, 1(2), 27-37.
- Tim, E. (2018). Public capital and economic growth: A convergence approach. *Journal of Economic Growth*, 6(3), 205-227.
- Udoffia, H., & Godson, J. R. (2016). The impact of federal government expenditure on economic growth in Nigeria (1981-2014). *Greener Journal of Social Sciences*, 6(4), 92-105.
- United Nations Development Programme (UNDP) (2016)*. Human development report, Women's empowerment, Poverty reduction and inequality, Gender equality.
- United States Agency for International Development (USAID) (2014)*. Global Health Programs for African women.
- Wang, X., & Wen, Y. (2013). Is government spending a free lunch? Evidence from China, research division, federal reserve bank of St. Louis, Working Paper Series. <http://research.stlouisfed.org/wp/2013/2013-013.pdf>
- World Bank, World Development Indicators, 2020*. Available: [data.worldbank.org/country/Nigeria](http://data.worldbank.org/country/Nigeria)