

Effect of Government Expenditure on Human Capital Index in Nigeria

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ABSTRACT: *The study examined the effect of government expenditure on human capital index in Nigeria. Government expenditure on administration, economic services, and social community services were the independent variables of the study, while human capital index was the dependent variable. The specific objectives were structured as follows: To ascertain the effect of government expenditure on administration on human capital index in Nigeria; to examine the effect of government expenditure on economic services on human capital index in Nigeria; and to investigate the effect of government expenditure on social community services on human capital index in Nigeria. The study adopted an ex-post-facto research design, covering the period between 2001 and 2021. Multiple regression technique was used for the data analysis. In line with the specific objectives of the study, it was revealed that Government expenditure on administration has a significant negative effect on human development index in Nigeria with a p-value of 0.0444 and t-statistics of -2.194267; Government expenditure on economic services has a non-significant positive effect on human development index of Nigeria with p-value of 0.3785 and t-statistics of 0.907474 and Government expenditure on social community services has a significant positive effect on human development index of Nigeria with p-value of 0.0403 and t-statistics of 2.245271. This implies that among the explanatory variables x-rayed, Government expenditure on administration and social community services are the major determinants of human development index in Nigeria. The study recommended therefore that the government should strive to block all the financial loopholes available to corrupt public officers and also ensure that any official caught perpetuating corruption should be prosecuted by relevant agencies. The government should increase the budgetary allocations made for agriculture, construction, transportation, communication. These expenditures increase human development in Nigeria. The government should ensure they increase the funds allocated to education, health, electricity and other social and community services. Such expenditures have proven to affect human development positively and significantly.*

KEYWORDS: government expenditure on administration, government expenditure on economic services, government expenditure on social community services, human capital development

INTRODUCTION

Background of the Study

The conspicuous pursuance of human capital development is no longer confined to the agendas of developing countries struggling to overcome the legacies of economic history, including the consequences of arbitrarily imposed dependence on traditional natural resources as a precursor to sustainable development. It is now a challenge for the growing cosmopolitanism of developed countries. In a rather candid approach, international commitment has reinforced the roles of human capital development in form of the Human Capital Project, which is a methodological framework, designed to strengthen and accelerate effective policies and strategy towards expanding human capital investment (World Bank, 2018). As noted in the World Development Report (WDR) (2019) titled “The Changing Nature of Work”, the frontier for skills is moving rapidly, bringing both opportunities and risks. Mounting evidence abound signaling that without strengthening human capital, countries cannot sustain economic growth, will not have a workforce prepared for the more highly skilled jobs of the future, and will not compete effectively in the global economy. The cost of inaction on human capital development is increasing in the “Knowledge economy” which is the new normal.

Human capital developments especially for developing countries are spearheaded by the government. This consolidates the need to investigate how expenditures of the government are channeled towards this. Health expenditure, public (percent of government expenditure) in Nigeria was reported at 131 percent in 2014 while the government expenditure in tertiary institutions counterpart as percent of GDP (percent) in Nigeria was reported at 0.50335 percent in 2003 (World Bank, 2020). The percentage of government allocation to education steadily declined from 7.14 percent in 2018 to 7.11 percent in 2019 and 6.48 percent in 2020 while aggregate expenditure on health was less than five percent (BudgiT, 2020). This is a far cry from the UNESCO recommended minimum benchmark which is 26% budgetary allocation to education while WHO recommended at least 15% allocation to health. So long as investment in human development remains scars, sustainable economic development will remain illusionary in Nigeria.

Recently, the United Nations Development Programmes (UNDP) 2019 report placed Nigeria in the 158th positions underneath the low, Human Development category (UNDP report, 2019). By the UNDP ranking, Nigeria lagged behind Ghana, Kenya, Cabo Verde, Angola, Namibia, Cameroun, Equatorial Guinea, Zimbabwe and Congo among others, which featured in the medium Human Development category. Equally worrisome is the fact that the joint wealth of Nigeria’s five richest men - \$29.9 billion - could end extreme poverty at a national level yet 5 million people face hunger (Oxfam, 2018). The accrued earnings from the wealth of the richest man in Nigeria are sufficient to lift 2 million people out of the scourge of poverty. Perhaps the growing inequality is explicable by daunting investment in human capital development. Therefore, investigating the effect of government expenditures on human capital development becomes pivotal in attempt to arrest the frail condition of human resources in Nigeria.

Statement of the Problem

Human resources constitute a vital part of economic development. They are like the fuel that propels most other parts of economic growth and development. Therefore, investing in human capital should be the objective of well-meaning governments. However, in a country like Nigeria, the reverse is usually the case. The Nigerian government has over the years shown great neglect for the key sectors of the economy that could help in improving the quality of human resource at the disposal of employers in the economy.

The one big implication of this is that the productivity ceiling is kept at a very low level. Health and education are one of the indicators that help in determining the relative level of development of human resources in a particular country. There are other indicators used to factor in to come up with the summarized version of the human development index, and it is the duty of the government to ensure that this is done as and when due.

Furthermore, the level of education in Nigeria is constantly waning. Even public health care is no longer affordable. As mentioned before, Nigeria ranks 152 on the Human Development Index by World Bank (2022), and the country with the highest number of extremely poor people in the world. One other thing is that the level of government expenditure on health and education as a percentage of its budget which is below 10% is very low as compared to UNESCO's recommendation of 26 percent. As a result of this, significant achievements have not been made in these regards; instead the level of education in the country is constantly degrading, together with the quality of health, which has even become more expensive for the common people to afford. Nowadays, when politicians get sick or want to train their children in school, they go abroad because of the pitiable state of things in Nigeria. All these have contributed to the poor state of human capital in the country, added to the increasing rate of brain drain in the country, it shows a crisis of human development, and the role that the general expenditures of the government has to play in alleviating this, is the focus of the current study.

Research Objectives

The broad objective of the study is to investigate the effect of government expenditure on human capital index in Nigeria. The specific objectives are to;

- i. Ascertain the effect of government expenditure on administration on human capital index in Nigeria.
- ii. Examine the effect of government expenditure on economic services on human capital index in Nigeria.
- iii. Investigate the effect of government expenditure on social community services on human capital index in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Government Expenditure

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. Government expenditures usually tend to increase with time as the economy becomes large and more developed or as a result of increase in its scope of activities. Ogboru (2010) identified recurrent and capital budget as one of the major types of budgets in an economy. It is sometimes referred to as revenue budget and it covers recurrent items or expenditure. The capital budget has to do with expenditures necessary to procure capital assets. 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. 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.

Government Capital Expenditure

Capital expenditure is primarily expenditure to create or acquire fixed(Non-current) assets and on the acquisition of land, buildings and intangible assets. In any one year, the amount of funding for cultural activities can be affected by high levels of one-off capital expenditure (Australian bureau of Statistics 2010) Capital expenditure is payments for acquisition of fixed capital assets, stock, land or intangible assets. A good example would be building of schools, hospitals or roads. However, it is important to note that much donor-funded "capital" expenditure, though referring to projects, includes spending on non-capital payments (Government Spending Watch, 2017).

Olugbenga and Owoye (2007) opine that capital expenditure is also composed of administration (for example, general administration, defense, internal security among others); economic services (includes, agriculture and natural resources, manufacturing, mining and quarrying, transport and communications and others); social and community services (such as, education, health, housing and others); transfers (includes, financial obligations, capital repayment for both internal and external loans, special projects, loans to parastatals and government-owned firms among others).

Government Recurrent Expenditure

Recurrent expenditure on goods and services is expenditure, which does not result in the creation or acquisition of non-current assets (new or second-hand). It consists mainly of expenditure on wages, salaries and supplements, purchases of goods and services and consumption of fixed capital (depreciation). Recurrent expenditure refers mainly to expenditure on operations, wages and salaries, purchases of goods and services, and current

grants and subsidies (Australian Bureau of Statistics 2010). Recurrent expenditure is all payments other than for capital assets, including on goods and services, (wages and salaries, employer contributions), interest payments, subsidies and transfers (Government Spending Watch 2017). Olugbenga and Owoye (2007) opine that recurrent expenditure is composed of; administration (examples includes, general administration, defense, internal security); economic services (includes, agriculture, construction, transport, communication and among others); social and community services (includes, education, health, housing and among others); and transfers (includes, public debt charges or interests for both internal and external debts, pensions and gratuities, among others).

Government Expenditure on Administration

These are expenses incurred in the general running of the activities of government for the benefit of the people. Expenditures on administration include expenses made on general administration, defence, internal security and national assembly. Osiegbu, Onuorah and Nnamdi (2010) posited that the federal government expenditure is another means of stimulating the economic growth of Nigeria by means of its fiscal policies consideration. When the federal government seems to boost the economy activities, it executes projects through the approved budgeted funds meant for its capital expenditure for that year. In other words, it is termed the “federal government expenditure fiscal year policy”; since it possesses the characteristics and role of fiscal policy towards the growth of an economy then federal government expenditure should be a fundamental element of economic variables which could characterize the well-being of productivity within the Nigerian economy.

Government Expenditure on Economic Services

These are expenditures on productive sectors of the economy. They include capital expenditures made in agriculture, construction, transportation, communication and other economic services. Federal Government capital expenditure helps to restore to the income circular flow monies taken away through tax. Part of federal government capital expenditure, according to Anyafo (1996) goes to individuals as transfer payment (pension and gratuities).

Government Expenditure on Social and Community Services

These are expenses incurred to improve the general wellbeing of the masses to promote growth and development in an economy. These expenses include those education, health, electricity and other social and community services. Federal government expenditures are usually directed at enhancing production. In addition to doing this they also influence the pattern of production and composition of output. According to Anyafo (1996), when suitable expenditure programme is designed by government it also results in the diversion of resources from undesirable areas to more deserving ones.

Human Capital Index

Human capital refers to the capabilities and skills of human resources of a country, which comprise level of education, expertise and abilities of the labor force, while human capital development is the process of obtaining and increasing the number of persons who possess the competence, knowledge and know-how that are required for economic growth and development of a nation (Okojie, 2005). In other words, human proficiencies to work

depends on the level of education acquired over time. Following the definitions of other scholars, human capital can be defined as the genetic product of learning which translates into special talents, capacities and technical know-how found in a nation's labor force for national economic expansion. Human capital development is the method of adding values to human beings in a nation in order to have a qualified, knowledgeable and healthy workforce that can give solution to national economic challenges on a constant basis.

The human development index is a statistical tool employed to generally assess a nation's social and economic attainment in all ramifications. The social and economic dimensions of a country are centered on the health of people, their educational accomplishments and standard of living (The Economic Times, 2018). The 2015 Human Development Report of the United Nations Development Programme shows that Nigeria's human development index increased, but her ranking continued to be at the low levels of human development. The report showed that, Nigeria was ranked 152 out of 185 countries that were ranked.

Theoretical Framework

Law of Increasing State Activities (Adolf Wagner, 1917)

Adolf Wagner a noted German political economist (1835-1917) propounded an empirical law to analyses and explains the trend in the growth of public expenditure. Wagner argued that a functional, cause and effect relationship exists between the growth of an industrializing economy and the relative growth of its public sector. According to Wagner, relative growth of the government sector is an inherent characteristic of industrializing economies. He illustrates this with the examples of Great Britain, U.S.A, France, Germany and Japan. He came to the conclusion that as per capita income and output increases in industrializing nations, the public sectors of these nations necessarily grow as a proportion of total economic activity. Wagner hypothesized a functional relationship between industrialization and the relative importance of public sector activity. He then set out to test his hypothesis by examining the industrialization process in various European countries and Japan. His observations led to what is now called as Wagner's Law of Increasing State Activity.

Wagner's law postulates that: (i) the extension of the functions of the states leads to an increase in public expenditure on administration and regulation of the economy; (ii) 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 (iii) the rise in public expenditure will be more than proportional increase in the national income (income elastic wants) and will thus result in a relative expansion of the public sector. This theory was used to anchor our research work because of its relevance in disclosing the relationship that should exist between government expenditure and economic development.

Empirical Review

Okafor et al. (2017) examined the long run relationship between the governmental expenditure in education and health and Human Capital Development in Nigeria. Using Vector Autoregressive model, the study show that the value of the joint significance indicates

that the current values of EDU and HTH are most influencing factors that determine the current values of HDI (-1). This is economically evidence that what influence Human Capital Development in Nigeria are the nature, pattern and level of governmental expenditure in education and health because the model reveal their insignificant direct impact on the HDI.

Okumoko et al. (2018) studied the dynamics of human capital development and economic growth in Nigeria. The aim of the study was to examine the impact of human capital development on industrial growth in Nigeria. The study applied the ARDL techniques on the time series data spanning from 1976-2016. The findings showed that moved towards equilibrium in the long-run. Their findings also showed that recurrent expenditure on education and health has a negative impact on industrial growth.

Madaki et al. (2020) examined the disaggregated impact of government expenditure on human capital development in Nigeria from 1989 – 2018. Intuitively, the study adopted the ordinary least squares method, novel for its BLUE properties of its estimators. The result found that capital expenditure has significant impact on human capital development cum economic growth in Nigeria and this finding is consistent with the endogenous hypothesis. Variance decomposition result suggests that recurrent and capital expenditure collectively contribute to change in human capital development in Nigeria, approximates Wagner's hypothesis.

Euphemia (2022) examined human capital development and economic growth in Nigeria. The time series data was sourced from Central Bank of Nigeria Statistical Bulletin and World bank data base from 1981 - 2020. Using the Autoregressive Distributed Lag (ARDL) framework; the bounds testing analysis indicated the existence of co-integration between economic growth and human capital development indicators. The study found total government expenditure on education having positive and insignificant long-run relationship with GDP. Also, total government expenditure on health and gross capital formation was found having positive insignificant long-run relationship with GDP.

Kairo et al. (2017) empirically studied the relationship between human capital development and government expenditure. Data were collected over the period 1990-2014. ARDL and impulse response function were adopted for the estimation. The Bound Test was used to determine that a long run relationship exists between HDI and GOVEXP. The results demonstrated that both in the long and short run, government spending has remained positive but to a very large extent insignificant to human capital development in Nigeria. This is why Nigeria's per capita income has remained low for a long time in the world ranking.

Imandojemu et al. (2020) analysed the likely determinants of human capital development in Nigeria over the period 1990 to 2018. Methodologically, the Autoregressive Distributed Lagged Model (ADRL) was modeled to examine the nature of relationship. Empirical results showed that the relationship between tertiary school enrolment and human capital development was positive but insignificant. The relationship between government expenditure on education (GXE), government expenditure on health (GXH), life expectancy (LI) on human capital development (HC) was positive and significant while the relationship

between Fertility Rate and human capital development in Nigeria was negative and significant.

Bareke et al. (2021) analyzed the macroeconomic determinants of HC development in Ethiopia using the Autoregressive Distributed Log (ARDL) model. Time series data from 1981 to 2018 was considered for the study. The empirical result of the study revealed that GDP per capita, openness, and education policy variables were found to have a positive and significant effect on human capital development in the short and long run. On the contrary, inflation has a negative effect on human capital development only in the short run. On the other hand, no evidence was found on whether the government's expenditure and capital-labor ratio have significant effects on human capital development.

Akhanolu et al. (2018) evaluated the effect of public debt on economic growth in Nigeria. The quantitative research technique was adopted, secondary data from 1982-2017 was gathered. Inferential analyses were conducted and findings from the study demonstrated that internal debt exerts a positive impact on economic growth while and external debt revealed an inverse relationship with economic growth. Premise on the findings, the study suggested that borrowed funds particularly external debt should be minimized.

Erasmus (2021) investigated the relationship between public expenditure and human capital development in Nigeria, evidence from 1960 to 2019. Secondary data was obtained from central bank statistical bulletin and United Nations development programme report various years. Hypotheses were tested using Ordinary Least Square Regression statistical technique. The finding shows that public education expenditure had significant impact on human development index. Evidence shows that public health expenditure had positive significant impact human development index. Jointly, health and education expenditure has a positive but insignificant impact on human development index in Nigeria.

Onazi (2022) evaluated the effect of government expenditure on health and education on human capital development in Nigeria. Vector Autoregressive (VAR) model, impulse response function was used to analyze the effect of government expenditure on health and education on human capital development in Nigeria using time series data from 1986 to 2018. The result revealed that government expenditure on education and health affected human capital development positively given its indices such as school enrollment rate, life expectancy rate and Literacy rate in Nigeria. Government expenditure on education and health affected human capital development in Nigeria negatively through its index known as mortality rate.

Gap in Knowledge

The broad objective of the study is to investigate the effect of government expenditure on human capital index in Nigeria. In pursuit of the objective, the study reviewed a number of empirical studies in relation to the study objective. However, the studies reviewed were too shallow to explain the relationship between the variables. This is because previous reviewed studies focused on government expenditures on education and health, and independent variables, whereas the current study investigates the effect of the aggregate government

expenditures on administration, government expenditures on economic services, and government expenditure social community services on human resource development in Nigeria. Also, the study becomes the most recent attempt at laying bare the degree of effect that government expenditures exert on human capital development.

METHODOLOGY

Research Design

The research design employed in this study is an ex-post facto design, chosen for its ability to facilitate future replications by different researchers aiming to verify or contest the validity of the findings. The study focuses on government expenditure and the human capital index in Nigeria, utilizing secondary data extracted from the Central Bank of Nigeria Statistical Bulletin for government recurrent and capital expenditures and the World Bank Database for total debts and the human development index. The population of the study encompasses all government expenditures from the CBN Statistical Bulletin in 2021, categorized into government capital and recurrent expenditures. The sample size includes all government expenditures, specifically targeting government expenditure on administration, economic services, and social community services, ensuring comprehensive coverage of the entire range of government expenditure categories.

Model Specification

Model specification entails identifying the dependent and independent variables that are important in a given situation. The model will be specified in line with Inyama and Ezeugwu (2016) with the following mathematical formula:

$$\text{HDI} = F(\text{GEXA}, \text{GEXES}, \text{GEXSCS}) \quad [\text{Equation (1)}]$$

$$\text{HDI}_{it} = \beta_0 + \beta_1\text{GEXA}_{it} + \beta_2\text{GEXES}_{it} + \beta_3\text{GEXSCS}_{it} + c_{it} + \varepsilon_{it} \quad [\text{Equation (2)}]$$

Introducing the control variables, we have:

$$\text{HDI}_{it} = \beta_0 + \beta_1\text{GEXA}_{it} + \beta_2\text{GEXES}_{it} + \beta_3\text{GEXSCS}_{it} + \beta_4\text{TDT}_{it} + c_{it} + \varepsilon_{it} \quad [\text{Equation (3)}]$$

Where;

HDI: Human Development Index

GEXA: Government Expenditure on Administration

GEXES: Government Expenditure on Economic Services

GEXSCS: Government Expenditure on Social Community Services

TDT: Total Debts (Control Variables)

β_0 is the constant term or intercept for firm i in the year t . β_1 , β_2 , and β_3 are linear regression coefficients to be estimated. c_{it} is the non-observable individual effect while ε_{it} is the disturbance or error term for firm i in the year t .

DATA PRESENTATION AND ANALYSIS**Table 4.2.1: Descriptive Statistic for the Variables Under Study**

	HDI	GCEX	GREX	GCOEX	TDEBT
Mean	0.498857	1296.105	718.7686	767.0735	10759.20
Skewness	-0.019564	0.609159	0.627292	0.504764	1.310581
Kurtosis	1.489543	2.581410	2.602840	2.228711	3.666545
Jarque-Bera	1.997636	1.452075	1.515252	1.412280	6.400427
Probability	0.368315	0.483822	0.468778	0.493546	0.040754
Observations	21	21	21	21	21

Source: Extracted from Multiple Regression Result in Appendix B

Table 4.2.1 above reveals the variable description of the 21 observations of the time series data for the variables used in the study. The normality of the distribution of the data series is shown by the coefficients of Skewness, Kurtosis, and Jarque-Bera Probability. From Table 4.2.1, the probability of the Jarque-Bera Statistics for the variables are insignificant for Human Development Index (0.368315), Government Expenditure on Administration (0.483822), Government Expenditure on Economic Services (0.468778), and Government Expenditure on Social Community Services (0.493546), while Total Debt (0.040754) have a significant p-value for Jarque-Bera Statistics. This shows that only total debts appear to be non-normally distributed among the variables. The kurtosis coefficients which is less than three confirms that the Human development index (1.489543), Government Expenditure on Administration (2.581410), Government Expenditure on Economic Services (2.602840), and Government Expenditure on Social Community Services (2.228711) have a normal distribution. While Total Debt (3.666545) has a non-normal distribution. The Skewness coefficient further confirm that Human Development Index (-0.019564), Government Expenditure on Administration (2.581410), Government Expenditure on Economic Services (2.602840), and Government Expenditure on Social Community Services (2.228711) are normally distributed. However, the control variable (Total Debt, 1.310581) have a non-normal distribution with skewness coefficient greater than one.

Regression Results (OLS)

After the application of the ordinary least square (OLS) estimation method on the model earlier suggested in section three, the following results shown in the table below were obtained.

Table 4.2.2 Multiple Regression Result (Dependent Variable: HDI)

Variable	Coefficient	Standard Error	t-Stat	p-Value
GEXA	-0.029882	0.013618	-2.194267	0.0444
GEXES	0.005078	0.005596	0.907474	0.3785
GEXSCS	0.029374	0.013083	2.245271	0.0403
TDEBT	-0.005206	0.005817	-0.895095	0.3849
C	0.003697	0.001946	1.899408	0.0769

$R^2 = 0.41$, Adjusted $R^2 = 0.25$, F-Stat = **6.622926**, Prob(F-stat) = **0.006573**, D.W. Stat. = **2.06**

Source: Extracted from Multiple Regression Result in Appendix B

Government Expenditure on Administration: The value of the t-statistics ($2.194267 > 2$) and the probability of the t-Statistic ($0.0444 < 0.05$) shows that Government Expenditure on Administration has a significant effect on the Human Development Index in Nigeria.

Government Expenditure on Economic Services: The value of the t-statistics ($0.907474 < 2$) and the probability of the t-Statistic ($0.3785 > 0.05$) shows that Government Expenditure on Economic Services has a non-significant effect on the Human Development Index in Nigeria.

Government Expenditure on Social Community Services: The value of the t-statistics ($2.245271 > 2$) and the probability of the t-Statistic ($0.0403 < 0.05$) shows that Government Expenditure on Social Community Services has a significant effect on the Human Development Index in Nigeria.

Total Debt (Control Variable): The value of the t-statistics ($0.895095 < 2$) and the probability of the t-Statistic ($0.3849 < 0.05$) shows that the total debts has a non-significant effect on the Human Development Index in Nigeria.

Statistical Criteria (First Order Tests)

The value of the Adjusted R^2 (0.25) mirrors that approximately 25% of changes in the Human Development Index in Nigeria are explained by the independent variable. The remaining 75% are explained by other factors capable of influencing the Human Development Index in Nigeria and factors contained in the error term. The value of the f-test (is used to check for the overall significance of the model. The value of the probability of the F-Stat (0.006573) shows that the model is significant and statistically fit. The Durbin-Watson Statistic (2.06) depict the presence of positive autocorrelation in the time series data.

Test of Hypotheses

The hypotheses were tested using the following decision rule:

Statement of Decision Criteria

According to Gujarati and Porter (2009), the decision rule involves accepting the alternate hypothesis (H_1) if the sign of the coefficient is either positive or negative, the modulus of the t-Statistic > 2.0 , and the P-value of the t-Statistic < 0.05 . Otherwise, accept H_0 and reject H_1 .

Hypothesis One

Restatement of the Hypothesis in Null and Alternate Forms

H_0 : Government expenditure on administration does not have significant effect on human capital index in Nigeria.

H_1 : Government Expenditure on Administration has a significant effect human capital index in Nigeria.

Presentation of Test Results

Table 4.2.2 Multiple Regression result is used to test the above-stated hypothesis.

Decision: From the regression analysis result in Table 4.2.2, the calculated p-value for government expenditure on administration is 0.0444 which is less than the alpha value of 0.05. It falls in the rejection region; hence, we reject the null hypothesis (H_0). The conclusion here is that government expenditure on administration has a statistically significant negative effect on the human development index in Nigeria.

Hypothesis Two

Restatement of the Hypothesis in Null and Alternate Forms

H_0 : Government expenditure on economic services does not have a significant effect on human capital index in Nigeria.

H_1 : Government expenditure on economic services has a significant effect on human capital index in Nigeria.

Presentation of Test Results

Table 4.2.2 Multiple Regression result is used to test the above-stated hypothesis.

Decision: From the regression analysis result in Table 4.2.2, the calculated p-value for government expenditure on economic services is 0.3785 which is greater than the alpha value of 0.05. It falls in the acceptance region; hence, we accept the first null hypothesis (H_0). The conclusion here is that government expenditure on economic services has a statistically non-significant positive effect on the human development index in Nigeria.

Hypothesis Three

Step 1: Restatement of the Hypothesis in Null and Alternate Forms

H_0 : Government expenditure on social community services do not have a significant effect on human capital index in Nigeria.

H_1 : Government expenditure on social community services have a significant effect on human capital index in Nigeria.

Presentation of Test Results

Table 4.2.2 Multiple Regression result is used to test the above-stated hypothesis.

Decision: From the regression analysis result in Table 4.2.2, the calculated p-value for government expenditure on social community services is 0.0403 which is less than the alpha value of 0.05. It falls in the rejection region; hence, we reject the third null hypothesis (H_0). The conclusion here is that the government expenditure on social community services has a statistically significant positive effect on human development index in Nigeria.

DISCUSSION OF FINDINGS

Effect of Government Expenditure on Administration on HDI

The test of hypothesis two revealed that government expenditure on administration has a significant negative effect on human development index in Nigeria. The table also depicts

that a unit increase in government expenditure on administration decreased in human development index in Nigeria by 0.029882. The result implies that the government expenditure on administration cannot be used to predict the human development index in Nigeria. The significant negative result could be drawn from the fact that the allocation of Nigerian budget in both the key sectors of human development such as health and education has been met with huge corruption and embezzlement. Ghost workers collect salaries for work they did not do. There is widespread corruption in the system. This agrees with Okumoko, & etal. (2018) who studied the dynamics of human capital development and economic growth in Nigeria. The study applied the ARDL techniques on the time series data spanning from 1976-2016. One of the findings showed that recurrent expenditure on education and health has a negative impact on industrial growth. However, the result does not agree with Onazi (2022) who evaluated the effect of government expenditure on health and education on human capital development in Nigeria. The result revealed that government expenditure on education and health affected human capital development positively.

Effect of Government Expenditure on Economic Services on HDI

In the test of hypothesis one, the result of the multiple regressions revealed that the government expenditure on economic services has a non-significant positive effect on the human development index in Nigeria. The table also depicts that a unit increase in government expenditure on economic services increased in human development index in Nigeria by 0.005078. The non-significance of the relationship or effect between these variables is that intended changes in human development index in Nigeria have not been brought about by the present by the government expenditure on economic services. This is explained by the fact that the allocation to expenditures on education and health for Nigeria falls way below the recommended level of the United Nations Development Programs. So, it explains why government expenditures on economic services translate to non-significant effects on the human development index. On another thought it may be possible that the little allocation to the education and health sector may not have been utilize judiciously for that purpose or might have been diverted by corrupt officer which might also be a pointer to the reason why many medical doctors are currently leaving Nigeria for other countries. This agrees with Kairo, & etal. (2017) who empirically studied the relationship between human capital development and government expenditure. The results demonstrated that both in the long and short run, government spending has remained positive but to a very large extent insignificant to human capital development in Nigeria. This is why Nigeria's per capita income has remained low for a long time in the world ranking.

Effect of Government Expenditure on Social Community Services on HDI

The test of hypothesis three revealed that the government expenditure on social community services has a significant positive effect on human development index in Nigeria. The table also depict that a unit increase in government expenditure on social community services increased human development index in Nigeria by 0.029374. The result implies that government expenditure on social community services can be used to predict human development index in Nigeria. The significance of the results indicates a strong relationship between all government expenditures on education, health, electricity and other social and community services and human development efforts in Nigeria. This agrees with Madaki, &

etal. (2020) examined the disaggregated impact of government expenditure on human capital development in Nigeria from 1989 – 2018. The result found that capital expenditure has significant impact on human capital development cum economic growth in Nigeria and this finding is consistent with the endogenous hypothesis. Variance decomposition result suggests that recurrent and capital expenditure collectively contribute to change in human capital development in Nigeria, approximates Wagner's hypothesis. However, this does not agree with Okumoko, & etal. (2018) who studied the dynamics of human capital development and economic growth in Nigeria. The study applied the ARDL techniques on the time series data spanning from 1976-2016. One of the findings showed that recurrent expenditure on education and health has a negative impact on industrial growth.

CONCLUSION, AND RECOMMENDATIONS

Conclusion

Human capital constitutes the most important part of any development. Improvements in economic growth and other major indices of development are majorly driven by improvements in human capital. Technological advancements are brought about by human capital or human resources. Therefore, developing these human capital and resources will always be key to economic development and growth. The government, being a chief facilitator of economic growth, is at the forefront of investments made in education and health with a view of improving the general human capital stock in the country.

From the regression analysis, government expenditure on administration has a significant negative effect on the human development index in Nigeria. On the other hand, government expenditure on economic services has a non-significant positive effect on human development index. However, government expenditure on social community services have a significant positive effect on human development index in Nigeria. The control variable (natural logarithm of total debts) has a non-significant negative effect on the human capital development in Nigeria. The adjusted R-squared showed that 25% of changes in human development index in Nigeria is caused by government expenditure and total debt. Hence, the study concludes that government expenditure (most importantly; government expenditure on administration & government expenditure on social community services) has a significant effect on human development index. However, 25% is considered small considering the expected role government should play in human capital growth.

Recommendations

From the findings, the following recommendations were made:

- i. The government should reduce her spending on administration and channel the resources to the area or sectors that would improve the stock of human capital in the country.
- ii. The government should strive to block all the financial loopholes available to corrupt public officers and increase the budgetary allocations made for agriculture, construction, transportation, communication. These expenditures increase human development in Nigeria.
- iii. The government should ensure they increase the funds allocated to education, health, electricity and other social and community services. Such expenditures have proven to affect human development positively and significantly.

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