Public Expenditure and Economic Growth in Nigeria

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Abstract: - This research was on "public expenditure and economic growth in Nigeria from 1980 to 2019. The broad objective or aim of this research is to investigate the influence of public expenditure/spending on economic growth in Nigeria - 1980 to 2019. The econometrics technique of ordinary least squares, co-integration, error correction model/mechanism and granger causal examination were employed as analytical tools. From the error correction estimation, we found that government expenditure/spending on education had a positive influence on economic ontogeny or growth and it was reliably statistically significant. Government expenditure/spending on health conforms to apriori anticipation. Public expenditure/spending was found to be necessary for influencing or impacting gross domestic/internal product. The granger causal outcome reveals that there is a causal relationship flow between government expenditure/spending on education and economic ontogeny/growth in Nigeria, and there was also causal relationship flow between government expenditure/spending on healthcare and economic growth. It was notably recommended that government/authority need to increase allotment to the educational and healthcare sectors of the economy. Training and retraining of healthcare and educational staff, and government/authority should embrace global trending technology in the educational and healthcare sectors because the entire world system is becoming digitally or technologically driven.

Key Words: public spending, education, health and economic growth

I. INTRODUCTION

The main focus of any government/administration is the well-being of its people, section 14(b) of the amended constitution of Nigeria. The major aim for expenditure by government authority or individuals is to gratify needs and essential demand. That of government, the main aperient is to satisfy the social or public welfare of its people or citizens by providing social or public goods. The consumption level or reliance on publicly provided products and services very much depends on the social and economic status of the citizens. Nigeria is a nation known for huge population under $1 for each citizen per day. It is clear that more dependence and attention will be reliance on the government/authority to provide their necessary needs like portable water, good roads network, electricity and low cost shelter etc.

Providing quality healthcare and good education is vital tool to tackle poverty even though it is necessary for national development. Having a big healthy and literate workforce is a vital step necessary for economic growth. Any nation's future relies on quality human capital, that is why investing in education and health in any country is very vital for national development.

Lucas(1988) and Romer(1990) reckoned that good education create human capital that produces sustainable growth. The impact of public spending on social indicator/pointer has always been a debate among policy makers and economists over time. Social public programme like education is known to exhibit certain amount of impact like skills and capacity development. Therefore, increase in spending by government in projects is necessary in increasing social or public benefits. But, there are arguments showing that health care and education expenditure has significant influence/impact on the development of a society. Many researchers have displayed that government expenditure on social needs, in developing or developed nations has good influence on social effects. Capita per head has been shown to be much substantial tool in determining immunization rates and school enrolment

Gupta & Tiongson (2001) utilizing cross sectional information for fifty transiting and less developing nations displayed that increase spending allocations on health and education increases accession to the acquisition of high college enrolment.

Sen (1999) noted that market forces alone cannot provide these public needs. Social programmes must then be valued as a medium or way that promote growth and ultimately development. The necessity for social investments arises because some services cannot be provided by free market system e.g (roads), and others will not be provided adequately e.g (Education, Community Services and Health).

The importance on public spending increase can be appraised on the premise that such expenditure reduces the effect of diseases on the production pattern of the population. World Health Organization (WHO) and Abuja proclamation by African nations is to entrust 15% of their total budget to healthcare and the United Nation's Educational Scientific Organization (UNESCO) advocates 25% for educational sector. The expectation from these levels of dedication will create the necessary impact on social or public welfare.

Divers researches or study have been done on the impact of public/social expenditure on several nations (Riman and Bassey, 2007; Lopes, 2002; Filmer and Pritchett, 1999). In Nigeria, various researches focused on federal government spending and various national social pointers like unemployment, life expectancy, poverty, infant mortality and literacy. The evidence displayed in this research is quite mixed. They affirm the necessity of healthcare and education in growth in the direction of development. Nigeria as a nation run a system of government with federal capital territory, thirty-six states and 774 local councils. The latest sharing

formula or pattern is local government (20.60%), states (26.72%) and federal (52.68%). Not looking at the internally yielding incomes of the various arms of governments.

Elias Mbam (2013) opined that much resources are allotted to the federal government, which seems to be promoting treasury favouritism, corruption and lootings in addition to excessive expenditure, while the local and state authorities are the epicentres of projects which boost the country. But protagonists reasoned that the critique of the centres are just on a bigger scale of all that happens at the outer boundary. Like, with few exclusion, local government only share federal allotments for self-enrichment of officials that are corrupt.

The appraisal on income mobilization and sharing pattern done by the Revenue/income Mobilization Allocation/allotment and Fiscal Committee is to ensure the accomplishment of a satisfactory formula which must ensure that the various tiers of government/authority carry out their constitutional mandate very well. The continuous increase in the number of clinics and private schools recently is open evidence in the decline/shortage of public goods in Nigeria. Despite the fall in the quality and level of these goods, government public spending has been rising over the periods. By the structure in place, state and local governments are obligated to increase the public well-being of the people by providing of social services/products like education and health (NISER, 2005). There is the necessity to investigate the influence of government expenditure/spending, as this will make us to determine their performance and know the shortcomings or problems.

The lingering issues of workers strike and school closure is as a result of poor salaries or lack of prompt payment, which has resulted to hapless quality of education and labour force.

World Bank (2012), "Authority/Government health expenditure or spending as a percent of GDP in Nigeria was just 4.8 percent in 1995. This irrupted to 5.6 percent in 1999 and 7.5 percent in 2003. It declined to 5.74 percent in 2008; irrupted to 6.08 percent in 2009 and decreased to 5.74 percent in 2010". Budgetary allotments to the education system(formal education) in Nigeria are quite inept in which the tertiary and secondary gets more than four times than basic education in the country, thereby resulting to a shaky footing. Through stargazing, government expenditure on education has not been sufficient and it is incongruous which has influenced the social system of the economy.

The research intends to examine the effect of public spending which influences the growth of Nigeria by critically investigating the influence of healthcare and educational expenditure in Nigeria (1980 to 2015). The study questions are: (i) What extent has public spending on educational sector affected economic growth in Nigeria; (ii)What extent has public expenditure/spending on health influenced growth in Nigeria; (iii) if causality exist between various variable.

The main reason of this research is to investigate/examine the influence of public spending/expenditure in Nigerian's economy. Specifically, the research work sought to: (i) Evaluate the impact of public expenditure/spending in education on Nigeria's growth; (ii) Investigate the effect of public spending/expenditure in health on economic ontogeny.

To try and draw the attention or focus of the government/authority on the need to efficiently fund the healthcare and educational sectors for the ontogeny of the economy. The research will assist policy makers fathom out achievable and workable design which will lead to growth and developmental strides through educational and health sectors. This work is also vital as it quest to unite via empirical facts or reasoning the unbiased concerns and findings noted by the germane authorities and organizations regarding Nigeria.

II. LITERATURE REVIEW

2.1 Theoretical Literature

This is the section for re-examining of theories of public expenditure/spending. Government spending consists of expenditure on social goods and services like administration, education and defence (Oxford Definition).

Until recently, public expenditure/spending theory have been receiving scimpy attention. This asymmetric interest in the theory/hypothesis of social finance is explicated by a general credence of the belief of laissez-faire and notion in the efficaciousness of free market system. Notwithstanding, with the coming of welfare economics, the part of the state has expounded especially in the sphere of infrastructural proviso and theory of social expenditure is drawing increasing need. This inclination has been strengthened by the expanding interest/involvement of economists in the ills of economic ontogeny, distributive justice, regional disparities, planning etc. (Bhatia, 2002).

Though the rationale for the ontogeny of public spending vary from nation to nation, it can be reasoned that public spending growth in several nations has been attributable to: unit cost/expense of providing various services, demographic changes, foreign advice, ideology, availability of funds, debit repayment, models of development, bureaucratic controls and narrow tax base amongst other elements when analyzing government/authority inflation and deficit, government spending and economic ontogeny (Ndung'u, 1995).

The theories re-examined, nonetheless, are not regulations of thumb, circumferential to all the rational for public/social expenditure ontogeny. Ekpo (1994) opined that other motives may include fiscal illusion, bureaucratic monopolies, debt repayment, electoral timing, demographic changes, internationalization of divers economies demand region arguments for social good provision, interest groups, inequalities, information and technical development, and displacement effect. These factors or elements may variegate between nations or amongst groups of nations

Adolph Wagner Jurisprudence of Accelerating State

Adolph Wagner (1835-1917) accelerating state activities opined that "there are integral disposition for action of government to accelerating industrialization economies". The 19th century statistician was interested in both the relative and absolute growth percent of the GNP used by the public/social sector. Agiobenebo (2000), "Adolph had a perceptual vision as regards effects of industrial ontogeny". He acknowledged that as industrialization evolves, contracts and markets would mature with it, hence, the nature of social, economics, institutional relationships, and political would mature to accelerating complex situation.

Peacock Wiseman Theory/Hypothesis

Wiseman and Peacock studied the social expenditure/spending of the United Kingdom between 1891-1955. They noticed that the jurisdiction was still effectual, thus stated the following:

1. The beingness of a structure between the prospect of the people on social expenditure and the tolerance degree of taxation. It re-enforces the need for authority to direct the requests by its citizens or people regarding various public services, especially, the constant rise in revenue collection or aggregation.
2. It was said that in times of war, the government/authority should increase the revenue by expanding the tax structure or pattern to accommodate superfluous expenses which may come up.

What Wiseman and Peacock deed was the recognition of situations that gave rise to periodical spring in public/social spending, thereby providing comprehensive narration for one of the characteristics of public expenditure/spending and its long-term level. The concept pertains to the glaring inclination for central government or authority economic actions to become a rising proportion of aggregate social economic actions when a society is having economic ontogeny. This categorically shows that the local and state levels of government/authority will decline or reduce.

Rostov and Musgrave's Development Model/Theory

Rostow is an economic historian while Musgrave is a noble economist. They have different opinions on the potential ontogeny of public spending in relation to the acquisition of the economy's ontogeny. Rostow in his article "the stages/levels of economic ontogeny", noted five sequential ontogeny stages or levels via his research of fifteen European nations.

1. Traditional(orthodox) society
2. Pre-conditions or stipulation to "take-off"
3. Take off or lift off
4. Drive to matureness or maturity
5. Age of muckle consumption

These models or theories are not without critique from other learned researchers for been very simple and connoting that a country's economic situation will seriously improve with time, which has visibly defiled all prospects in developing countries. Thus the model noted the mediums that most nations take and supply some direction to national ontogeny and policy establishment. During every stages and levels of development, market failure may happen in reaction to enlarging government activities.

Musgrave reasoned that during ontogeny period aggregate investments increases as a ratio of GNP, a significant percent of the public/social segment falls, but not totally. On the other mitt, Rostow asserts that once the country's system matures, the scope of public expenditure/spending will move from spending on basic amenities to an expanding government expenditure on welfare services, health care and education.
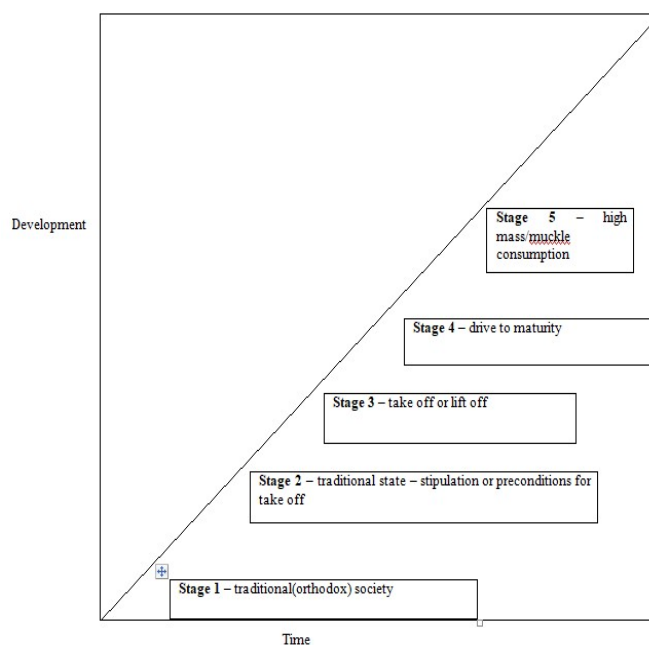
Endogenous Growth Model/Theory

The theory/model opined that economic ontogeny is primarily the outcome of endogenous which is not external effects. Endogenous growth model says that investments in human resources, knowledge and innovation are important contributors to economic ontogeny. The theory/model also centring on positive spillover effects and externalities on a knowledge-based system which will result to economic ontogeny. The endogenous growth hypotheses mainly holds that the long-term growth rate of a country's economy reckons on policies. E.g., subsidies for education, research and development increases the ontogeny rate in several endogenous growth theories by increasing the inducement for innovation.

But, one of the primary flaws of the endogenous growth model is the joint failure to explicate conditional convergence. Krugman paul faults endogenous growth model as almost

impossible to be ascertained by empirical evidence, "plenty of it implies making assumptions as regards immeasurable things affecting other immeasurable items or things".

2.2 Empirical Literature

Olabisi & Oloni (2012), examined the correlation existing amongst the characteristics of public expenditure and economic ontogeny in Nigeria utilizing vector auto-regression model (VAR) between 1960-2008. The study showed that spending on educational sector has not statistically enhanced economic ontogeny due to the high rate of unemployment/joblessness. The study also showed that agriculture and health should be given more attention because of high favourable share it brings to development.

In conclusion, result from the research done on the empirical relationship that existed between social spending and growth are different in relation to the country, data and models which are examined. Thus, the continuous appraisal as regards the effects of public spending on growth and is quite open to more critique.

Landau (1983) noted that the contribution of government/authority consumption to GDP decrease economic ontogeny which is quite accordant with the pro-market horizon as regards ontogeny in government and constraints. The conclusions was relevant to ontogeny in per capita outcome and do not needfully speak to raise economic welfare. Growth was also noted to have positive relations to aggregate investment in educational sector. In a later research, Landua (1986), expanded the analysis to involve physical and human capital, international conditions and political with three years lag on government expenditure in GDP. Authority/Government expenditure was disaggregated to involve defense, investment, education, transfers and other authority consumption. Results in part reflected the earlier research works in that general government/authority consumption was important but negative impact on growth. Educational sector expenditure was not significant but positive coefficient. It was not clear why lagged or fall-back variables were involved given that the mediums via which government impacted growth indicate a contemporaneous relation.

Junko & Vitali (IMF, 2008) examined the influence of government spending on economic ontogeny in Azerbaijan due to the temporal oil production flourish (2005-07), which resulted to huge expectational spending rise aimed at developing basic amenities and incomes increase. Azerbaijan's total spending increased by an aggregate 160 percentage in nominal value between 2005 and 2007 (i.e. 41% of non-oil input to GDP to 74%). In their study reference were mentioned to Saudi Arabia and Nigeria (1970-1989) who have also went through oil flourish and increased government/authority spending over the periods. The research simulated the neo-classical ontogeny model oriented towards Azeri circumstance. Their analysis proposed that the examined fiscal synopsis poses important risks to

development sustenance and historical observation which shows that the first ontogeny performance depends largely on the experience of scale-up spending. The research also throw light on the dangers associated with a quick scaling-down of spending including the political problems to take an orderly spending reduction plan without countermining economic ontogeny with the crowding-out influence of huge government/authority domestic borrowing.

Loto (2011) researched the influences of government expenditures on communication, security, health, transport, agriculture and education on the economy utilizing error correction model. He said that spending on agriculture negatively influence the economy. Educational sector was both non-significant and negative to the economy or system. Spending on health sector positively influenced the system while security, communication and transport were non-significant though positive coefficient.

Filmer & Pritchett (1999), researched that the major factor of the citizen's health status in a nation is income or finance, while the percent of public expenditure on health indispensable are hardly or narrowly significant.

Olaniyan & Lawanson (2010), in a research of health expenditure and health sector status in southern and northern Nigeria noted that the income per capita of health spending across the regions is quite low and there are huge differences in health expenditure across the regions. They resolved that the per capita spending is quite lower in the northern part in comparism to the southern part, and that the northern part is generally piteous relative to the southern part.

Yaqub, Yussuff and Ojapinwa (2010), their research examined how the effectualness of social health spending is influenced by the government in Nigeria utilizing both the two-stage least square(2TLS) and ordinary least square(OLS). The result of the research work displayed that social health-care spending have negative impact on infant-mortality, when government indicator(s) are added. Corruption decreases the efficacy of government. Nigeria has a high corruption ranking, which hugely explains the reasons for the country's continuous dwindling public outcomes.

Rajkumar & Swaroop (2008) resolved a similar research about the relationship between social outcomes, public expenditure and governance. They utilized information from 91 developed and developing nations (1990, 1997 and 2003). In the research they were trying to answer certain puzzles if public expenditure in nations with huge efficacy of social expenditure produces better results. They resolved that the differences of the effectualness of public expenditure can be significantly narrated by good government. The continuous rise in public expenditure on education and healthcare is not enough to show that the nation will achieve good social results, if the nation is still having attribute of poor governance.

2.2.1 Investment in Human Resource Capital and Economic Growth

The past decades focus of researchers dwell continuously on the impact of human resource capital on the ontogeny of the economy by increment on the facilities of health and education. Sustained economic ontogeny together with public development is very essential macroeconomic target of every nation. Growth is vital because it is the target of economic policies and laws, even in Nigeria as a country because it increases the attainment of quality hospitals and other social/public amenities.

Babalola (2003) said that educational input to the ontogeny of the economy is attached on its ability to increase the productive capacity of an existing labour-force. Babalola opined that educational sector contributes to the ontogeny/growth of the country's economy in the following areas:

- It impacts skills that are productive such as laws, medicine, teaching, engineering, and accounting which are necessary in any productive process.
- It supplies knowledge in arts, mathematics, economics, history and political sciences which contributes to growth/development through the mediums of entrepreneurship and innovations.
- Provides stable environment and jobs for the creation of economic products and services.

Healthcare is second stead to human resource development. For a workforce to be known for productivity, it should first be known to carry out productivity guidelines which only physically and mentally healthy workforce can do. A strong workforce is a very necessary factor in growth. Since education and health influences individual's participation in economic productivities and the level of the labour-force in a country's economy, a re-orientation of authorities to invest hugely in education and health sector to boost ontogeny in the country is very necessary.

2.3 Evaluation(Summary) of Literature Reviewed

Human development is hugely regarded or known to be reliant on several programmes, specifically, education and health care delivery. Nonetheless, empirical works have noted that government/authority continuous expenditure on public programs recorded weak effect on public outcomes along with economic ontogeny. Olabisi & Oloni (2012), opined that agriculture and health must be given adequate attention due to their contribution to development, but did not realize or remember that without the educational sector we cannot have trained doctors, and the agricultural sector workforce will be deficient on the know-how or knowledge required for such sector. Filmer & Pritchett (1999), said that the health status of the population in a nation is income, leaving the education system which is the central contributing component for knowledge or know-how as regards health profession. Yaqub, Ojapinwa & Yussuff (2010) study focused on public spending on health-care, without giving thoughts to the educational sector. Gupta (2002) reasoned that social expenditure is an important determinant of education and health outcomes.

III. METHOD OF STUDY

3.1 Research Design

Baridam (2012) opined that research design is an hypothetical statement that scholars use as a procedure for collating and analyzing information for a research. This design is about how the research subjects will be imputed into the ambit of the research work and the way it will be used within the research scope to get the required information. This research utilized a quasi-experimental pattern. And so, it is strictly analytical. The work adopted descriptive and explanatory research pattern. The explanatory work involves data collating from unpublished and published research, to do all these, OLS procedure, Augmented Dickey-Fuller, Error Correction Mechanism/Method and Granger Causal test were used. The descriptive study involves trend graph and analysis.

3.2 Model Specification/Spec

The model for the research is as follow:

GDP = f(GEE, GEH)   3.3.1

Linear Specification/spec: GDP = a_0 + a_1GEE + a_2GEH + ε

3.3.2

Apriori Expectation/Anticipation: $a_1 > 0$, $a_2 > 0$

The dependent variant is Gross Domestic/Internal Product (GDP).

The independent variants are Government Expenditure/Spending on Education (GEE), and Government Expenditure/Spending on Healthcare (GEH). Data were collated from CBN and NBS

Data Analysis: OLS regression method was employed to investigate the relationship involving the dependent variant and the independent, Augmented Dickey-Fuller estimation and Unit root analysis - which estimated the stationarity. Co-integration for long-term involvement. ECM to analyse the static long-term and dynamic short-term of the variables. Granger Causality estimation for causality relationship or involvement among the variables.

IV. DATA PRESENTATION, ANALYSIS AND DISCUSSION

The broad objective or aim of this research is to examine or evaluate the influence of public expenditure/spending on economic growth in Nigeria.

4.1. Trend Analysis

Fig.1 Trend Analysis for GDP and Government Expenditure/Spending on Education

Fig.2 Trend Analysis for GDP and Government Expenditure/Spending on Healthcare
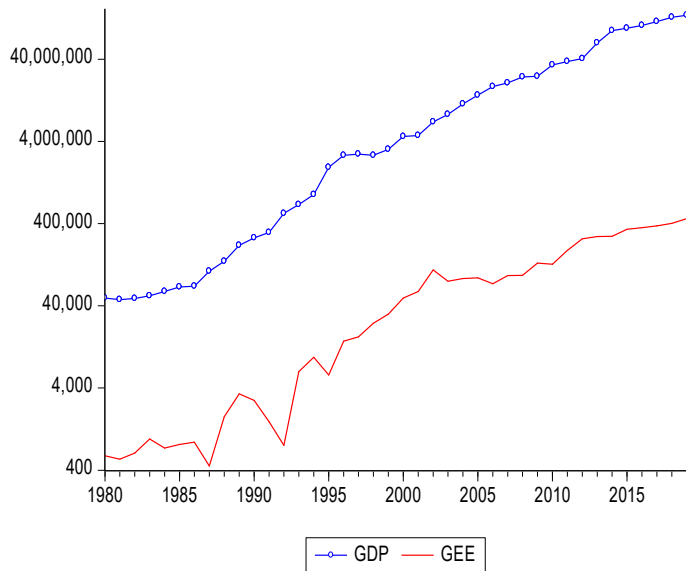
From fig.1 above, GDP line graph(twig graph) shows that growth have been fluctuating up from 1980 to 2019, while the line graph of government expenditure/spending on education between 1980 and 1986 was fluctuating, and nose-dive in 1987, and rose up afterwards, but also nose-dive in 1992, and went up again, from which it started fluctuating upwards. However, the graphs shows that as government spending on education increases, the growth of GDP was affected positively.
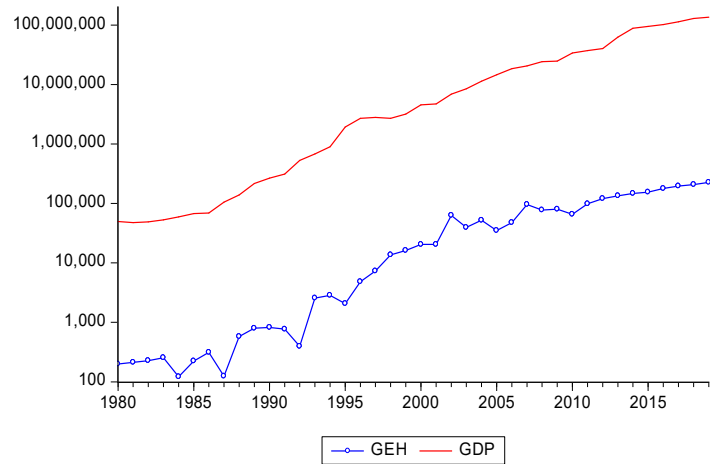
In Figure 2 above, GDP line graph shows that GDP have been fluctuating up from 1980 to 2019, government expenditure on health(twig graph) between 1980 and 1983 was increasing relatively, but went relatively low in 1984, and rose up afterwards, but also nose-dive in 1987 and 1992, and went up again, from which it started fluctuating upwards. However, the graph shows that increase in government spending on health leads to improvement in GDP because healthy workforce is a boost to any nation.

4.2 Unit Root Test (Stationarity Test)

Short run estimation may have spurious result, a stationarity analysis becomes important. In testing or estimating unit root for the variants, we employed Augmented Dickey-Fuller (ADF) unit root result. The ADF equation structure that was utilized is shown below;

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \Sigma \alpha_1 \Delta y_i + \delta_t + U_t$$

Table 4.2: Unit Root Estimation

Variables	ADF Test	Critical Values			Order of Integration	P-Value
		Critical Value 1%	Critical Value 5%	Critical Value 10%		
GDP	-4.161209	-4.219126	-3.533083	-3.198312	1(1)	0.0116
GEE	-6.661135	-4.219126	-3.533083	-3.198312	1(1)	0.0000
GEH	-6.727814	-4.243644	-3.544284	-3.204699	1(1)	0.0000

Source: *Authors' Computed Result from E-views 9*

Table 4.2 showed that the variants were stationary at first difference level i.e., the gross domestic/internal product (GDP), government expenditure/spending on education (GEE), and government expenditure/spending on healthcare (GEH were all stationary at first difference.

4.3 Co-integration Test

The general form of co-integration is given by $y_t = \mu + \Delta_1 y_{t-1} + - - - + \Delta P \, y_{t-p} + U_t$

The co-integration estimation, according to Gujarati (2004), is a necessary pre-test that reveals whether the variants have a long run/term relationship or not.

Table 4.3 Co-integration

Date: 03/24/20 Time: 01:51			
Sample (adjusted): 1982 2019			
Included observations: 38 after adjustments			
Trend assumption: Linear deterministic trend			
Series: GDP GEE GEH			
Lags interval (in first differences): 1 to 1			
Unrestricted Cointegration Rank Test (Trace)			
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.534191	42.76241	29.79707	0.0010
At most 1	0.248787	13.73115	15.49471	0.0906
At most 2	0.072516	2.860635	3.841466	0.0908
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level			
* denotes rejection of the hypothesis at the 0.05 level			
**MacKinnon-Haug-Michelis (1999) p-values			

The Johansen co-integration estimation shows that there is co-integration as shown by the *Trace* Statistic values. GDP variant has a long-term relationship with the other variants (i.e., GEE and GEH). This is a vital prerequisite for Error Correction Estimation.

Table 4.4 Parsimonious Error Correction Model

Dependent Variable: D(GDP)			
Method: Least Squares			
Date: 03/24/20 Time: 02:36			
Sample (adjusted): 1984 2019			
Included observations: 36 after adjustments			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	44642.89	672354.9	0.066398	0.9476
D(GDP(-1))	0.604557	0.162848	3.712391	0.0010
D(GDP(-2))	-0.432578	0.152964	-2.827967	0.0089
D(GEE)	-128.7498	35.86653	-3.589691	0.0013
D(GEE(-1))	188.0560	46.11274	4.078179	0.0004
D(GEE(-3))	90.55238	45.20269	2.003252	0.0557
D(GEH)	175.8490	50.93670	3.452305	0.0019
D(GEH(-1))	33.33990	51.01898	0.653480	0.5192
D(GEH(-2))	121.0640	44.51668	2.719520	0.0115
ECM(-1)	-0.018590	0.087687	-0.212007	0.8338
R-squared	0.825343	Mean dependent var		3800382.
Adjusted R-squared	0.764885	S.D. dependent var		6195427.
S.E. of regression	3004078.	Akaike info criterion		32.89897
Sum squared resid	2.35E+14	Schwarz criterion		33.33884
Log likelihood	-582.1815	Hannan-Quinn criter.		33.05250
F-statistic	13.65149	Durbin-Watson stat		2.045113
Prob(F-statistic)	0.000000			

From E-views 9 (Author's computation)

Error Correction Estimation

$$GDP_t = \alpha_0 + \Sigma\alpha_{1t} GEE_{t-1} + \Sigma\alpha_{2t} GEH_{t-1} + U_t$$

$$GDP = 44642.89 + \Delta_{t-1}(GEE)188.05660 + \Delta_{t-1}(GEH)33.33990$$

t-test = (0.066398)   (4.078179)   (0.653480)

$R^2 = 0.825343$

Durbin-Watson (d) = 2.045113

F-test = 13.65149

ECM Coefficient = -0.018590

Level of significance = 5%

Evaluation/Analysis of ECM Results

The ECM outcome shows that the R^2 is 0.82. Meaning, 82% of the changes in GDP are caused by the modifications or changes in the independent variants. Leaving 18% to the stochastic term. The F-test value (13.65149) shows that the variables or variants used were significant at 5%. The Durbin-Watson value (2.045113) shows absence of autocorrelation. The ECM coefficient was correctly negative, and all the variants displayed the expected or anticipated apriori signs.

The government expenditure/spending on education coefficient conforms to apriori anticipation and was statistically relevant at 5% level. The positive coefficient of government expenditure/spending on education is in alignment with the findings or result of Landua(1986). Meaning, spending on education is important for development as highlighted by Babalola(2003).

➢ Government expenditure/spending on healthcare conforms to apriori anticipation. Which is in agreement or consonant to the findings of Loto(2011). But it was not statistically okay at 5% level. However, the coefficient being positive reveals that increase in government spending on healthcare is vital because healthy workforce is quite necessary for productivity which will spur economic growth/development.

❖ *Causality*

Table 4.5. Pairwise Granger Causality Test Result

Pairwise Granger Causality Tests			
Date: 03/24/20 Time: 01:55			
Sample: 1980 2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
GEE does not Granger Cause GDP	38	18.9292	3.E-06
GDP does not Granger Cause GEE		0.99362	0.3810
GEH does not Granger Cause GDP	38	6.07538	0.0057
GDP does not Granger Cause GEH		0.58336	0.5637
GEH does not Granger Cause GEE	38	0.87458	0.4265
GEE does not Granger Cause GEH		3.48763	0.0423

Source: *Computed Result (E-View 9)*

Table 4.5 reveals that government expenditure/spending on education (GEE) granger cause gross domestic/internal product (GDP), but gross domestic/internal product (GDP) does not granger cause government expenditure/spending on education (GEE), which means there was bi-directional causality effect between GEE and GDP. Government expenditure/spending on healthcare granger cause gross domestic/internal product (GDP), but gross domestic/internal product do not influence or causes government spending on health.

> ➢ *Policy Implications*

1. There is the necessity to step-up government budget allotment to education so as to increase the performance of the educational sector. Meeting the stipulated 25% budgetary allotment to education as recommended by well known UNICEF will help to attain educational developments which will in-turn spur-up growth.
2. Increase in financing healthcare is quite necessary. A stable and mentally balanced labour-force is a major boost for sustainable and rapid growth.
3. Spending to cater for educational and healthcare staff training and retraining is very important to attain growth and world recognition.
4. The government or authority should quickly embrace technology because digitalization of the world is fast gaining pre-eminence, hence the need for spending and partnership with internationals to get experience and advance the economy.

V. SUMMARY AND CONCLUSION/RECOMMENDATIONS

Summary of Findings

The study/research evaluated the impact of social/public expenditure/spending on economic ontogeny or growth in Nigeria between 1980 and 2019. Notably, empirical exposure on the nature of the relations between the dependent variant (i.e., gross domestic/internal product) and the independent variants (i.e., government expenditure/spending on education and government spending/expenditure on health). The regression outcome displayed that the variants was in conformity to apriori anticipation. Government expenditure/spending on education was statistically relevant in the ECM. Goodness of fit (R^2) showed strong/better relationship between gross domestic/internal products and the independent variants. The F-test reveals that the variants were statistically significant or relevant at 5% level. Granger Causality outcome has also provide answers to the statement of problem queries, which depicted that there is causality relations between gross domestic/internal product up-growth and government spending on the educational sector, and that, causality relations also existed between gross domestic/internal product and government spending/expenditure on healthcare.

Conclusion and Recommendations

The research or study examined public expenditure/spending and economic growth or ontogeny in Nigeria (1980 - 2019). The gross domestic/internal product may continue to rise when public/social expenditure or spending of Nigeria is heightened, which exhibits the multiplier law. The inadequate or low funding of healthcare and educational sectors is horrifying in Nigeria. Nonetheless, the research work still found out that social/public spending has shown to impact gross domestic/internal product positively. The research also noted that there existed a causality relations between public/social spending(healthcare and education) and economic ontogeny in Nigeria. The research work concluded that, there should be public spending increase to attain quality growth - the policy which will assist in increasing growth, i.e. more and more of government spending. But the nidation of the policy options must be done with some caution as government continuous spending may cause inflationary trend. And proper spending should be engaged to avoid favouring/enriching some individuals via corruption. Nigeria should sort both external and internal support from NGO's and international organizations dedicated to the development or advancement of healthcare and education world-wide.

Contribution to Knowledge

The research work has revealed that economic growth/ontogeny is not necessarily all about government continuous expenditure/spending but impressive usage of the resources available which has been allotted to specific aim. And government expenditure/spending is very vital for development.

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