HEALTH EXPENDITURE AND ECONOMIC GROWTH NEXUS IN NIGERIA: DOES INSTITUTIONAL QUALITY MATTER?

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ABSTRACT

Institutional quality is considered to be a determining factor in enhancing the growth of any economy. This paper examines the role of institutional quality in growth enhancement and the precise role it plays through the channel of health expenditure. The ARDL model was employed between the period of 1984 and 2019 to ascertain the link between the variables in question. The paper provides evidence that the long-run effects of health expenditure and institutional quality on economic growth are both surprisingly negative, but with only institutional quality having a statistically significant relationship. Further findings reveal that the institutional quality moderates the effect of health expenditure on growth. Specifically, when institutional quality is maintained at a threshold of 0.52 level, growth will be at least positive. This means that, with institutional quality at less than the threshold level, the economic growth will become negative. However, with the right policies in place as recommended, there could be a turn in events.

Keywords: Institutional quality, health expenditure, ARDL, threshold, long run, economic growth, short run and population growth.
JEL codes: I10, I31, C15, C13, C41, O40, C13 and J10

1. Introduction

Human capital is seen as a key tool for enhancing economic growth across different economies of the world. The concept refers to the human factor in the production process that combines the knowledge, skills and abilities of the workforce Ejere (2011). Human capital can be seen in two components; health and education. However, Todaro and Smith (2012) opine that they are not only a means to enhance growth but are also important ends in themselves. These main components of human capital – health and education – are vital in enhancing a satisfactory and rewarding life and they both lie at the heart of the meaning of

development. According to Bakare and Olubokun (2011), better health care is a primary human need and recommends Nigerian policymakers to pay closer attention to the health sector. The World Health Organization (2001) reported that health is capital and hence investment in health is an important source for economic growth. Furthermore, WHO's Commission on Macroeconomics and Health (2001) stated that "extending the coverage of crucial health services to the world's poor could save millions of lives each year, reduce poverty, spur economic development and promote global security". About 50% of economic growth differentials between developed and developing nations were ascribed to poor health conditions and low life expectancy. First world nations are known to allocate a chunk of their GDP to spend on health care because they consider the residents' health to serve as a major driver for economic performance. It is in view of this that Nigerian governments over the years have made courageous efforts to ensure a remarkable increase in public health care expenditure. Between 1981 and 1990, government recurrent expenditure averaged ₦0.217 billion. Between 1991 and 2000, 2001 and 2010, 2011 and 2017, it averaged ₦5.357 billion, ₦61.996 billion and ₦214.549 billion respectively. This scenario clearly illustrates the deliberate increase in health care expenditure over time to improve the health institutions across the nation because it has become well known that poor quality institutions can frustrate every effort by the government in improving health care services. In as much as these efforts by the government have yielded a remarkable improvement in the access to healthcare services, it is quite disappointing that the desired quality of health care services has not significantly improved with the current life expectancy rate in 2020 reported by the United Nations to be around just 54.81 years. Jack and Lewis (2009) were of the opinion that unproductive motives, lack of accountability and government failure in the health sector could be responsible for such outcomes.

The diversity in the institutional setting is known to be very much connected to the variations in the performance of the economy across nations; this is to say that countries with weak institutions perform pitiably while the countries that perform better tend to have better and reputable institutions (Iqbal & Daly, 2014). Thus, it is expedient to ascertain if institutional quality plays an essential role in the health expenditure-growth relationship. On one hand, extant literature suggests that stronger institutions such as; good governance, rule of law and less corrupt practices can boost health care services to meet public demand. On the other hand, weak institutions that include corrupt practices, bureaucratic incompetence, red tape, lack of property rights and rule of law could halt the frivolous efforts channeled through increased health expenditure to revitalize the sector. Weil (2014) opined that the relationship between health expenditure and economic growth is dependent on the good institutional qualities and human capital. This could possibly be the reason for the negative relationship between health and growth for the case of Nigeria because the institutional quality and human capital at the moment are in poor conditions. This suggests that there could be a determining level of institutional quality and below could account for these adverse effects on the

economy despite the consistent increase in public health expenditure. This factor has been the driving force for this paper.

Despite the importance of the quality of institutions in the health sector, there have been very few studies on this topic. With corruption, poor management, inadequate medical supplies, utilization statistics, etc., playing key roles in the health status of patients, there is need to pay rapt attention to the quality of all these and get them solved, if not, the nexus between the expenditure and its outcome will remain weak and feeble. Several literature have are available on health expenditure – growth relationship (some review is provided in the next section) in Nigeria, but they hardly considered the quality of expenditure (institution) alongside health investments. Our value addition is to capture the role institutional quality plays in measuring the effect of health expenditures on economic growth

The obvious gap in literature give rise to this empirical evaluation of the interactive effect of health expenditure and institutional quality on economic growth in Nigeria and also estimate the threshold link between health expenditure and institutional quality. Thus, this article aims to estimate (i) the long-run impact health expenditure and institutional quality exert on economic growth; (ii) the interactive effect of health expenditure and institutional quality on growth; (iii) the threshold level of institutional quality and above the relationship between health expenditure and economic growth becomes positive for a period of 1984 – 2019.

2. Literature Review

2.1 Theoretical literature

Health is another form of human capital that impacts economic growth with its direct effects on health outcomes and labour output. Health outcomes and the level of the economic output of any economy have been proven to have a relationship between them (Alhowaish, 2014).

Health spending is categorized into health and health-related expenditures. These expenditures are explained in terms of their aim of improving health irrespective of their primary function (Alhowaish, 2014). According to Alhowaish (2014), health expenditure comprises of the overall expenses for medical care, community health, activities, prevention, rehabilitation, promotion, health administration and regulation, and capital formation prioritizing an improved health outcome. Health-related expenditures on the other hand refer to expenditures on health-related functions which are Medical education training, wages & salaries, research & development. This suggests that for health and health-related activities to be effective, there must be an improvement in the efficiency and equity in the allocation of healthcare funds. This conforms to Wagner's law of increasing state activities and Keynesian theory of public expenditure. Wagner's law (Wagner, 1883) explains that during the process of economic growth, the share of public expenditure, and GDP increases. Wagner is therefore of the opinion that a functional relationship exists between economic growth and the growth of government activities. This higher level of economic growth requires higher levels of public expenditure. Keynesian school of thought believes that expenditure can contribute to

economic growth positively. If government expenditure increases, there would be a rise in investment, profitability, and employment due to the effects of the multiplier on aggregate demand. Narrowing down to the health sector, when expenditure increases, the multiplier effect will bring about an increase in disposable income that raises demand for better education, healthcare and improved housing facilities. As a result of the increase in demand which will improve the health status that would hasten economic activities and eventually lead to economic growth as healthy people will become more productive.

2.2 Empirical Literature

The state of one's health is crucial to his\her well-being. Health has been found in several studies to make a positive contribution to the growth of the economy at the micro and macro levels. Meyer and Sinani (2009) argued that a decent institutional framework is a motivation to the economy by way of enabling the domestic firms to adjust to the foreign firms entering the country which creates the spillover effect of FDI. Jude and Levieuge (2015) concluded that with sound quality institutions, there tend to be better economic performance.

2.2.1 Empirical Literature on Institutional Quality and Economic Growth

Most empirical literature that conforms to theoretical studies suggests that institutions are indeed essential in the growth and development process but their quality is the major determinant of how impactful they could be. Alonso and Garciamatin (2013) suggested that institutions can't work if they are unable to shape effectively the agent's behaviors. This implies that institutions that are not well structured such that they would be reverenced by agents may be unsuitable, thus impeding their capacity to perform effectively.

Path-breaking studies of Pande and Udry (2005) was inspiring to other researchers and policymakers to explore the roles institutions play in affecting the economy and were able to prove the existence of faster long-run growth in countries with high-quality institutions, better law enforcement, increased protection of private property rights, improved government bureaucracy, smoother operating formal sector, financial markets, increased levels of democracy and higher levels of trust. Iqbal and Daly (2014) argued that feeble institutions divert scarce resources to the unproductive sector that eventually encourages rent-seeking activities whereas strong institutions on the other hand halt the possible channels that promote rent-seeking activities and foster economic growth process and productivity of the growth-inducing factors. Similarly, Chimere et al (2017) studied Institutional Quality and Economic Performance in West Africa and the outcome of the paper suggests that all the institutional quality indicators used in the study had revealed a positive significant effect on economic performance in West Africa when they employed the fixed and random effect technique which also reported that economic prosperity in West Africa would be greatly influenced positively by improved institutions with more consideration to government effectiveness. According to Yusuf and Malarvizhi's (2014) study on institutional qualities and Nigeria's economic growth performance, ARDL model approach to co-integration and Causality were

deployed and their findings revealed that sustainable improvement in good institutions is associated with rising growth and per capita income. Udah and Ayara, (2014) took a queue to examine institutions, governance structure and economic performance nexus in Nigeria. They employed the Ordinary Least Squares method and found government effectiveness, voice and accountability to exert a positive and significant relationship with economic performance. Sule (2020) investigated the institutional quality and economic growth in Nigeria from 1979 to 2018. The findings of the estimated linear OLS model show that economic growth responds positively to institutional quality (contract intensive money) and is also statistically significant.

2.2.2 Empirical Literature on Health Expenditure and Growth

Empirical investigations on the relationship between health expenditure and growth in Nigeria such as the study put up by Victoria (2015) used time-series data from 1982 to 2011 to investigate the relationship between investment in education, health and economic growth in Nigeria deploying the approach of Johansen cointegration and Ordinary Least Squares which indicated a positive relationship among the variables. Similarly, Gebrehiwot (2015) analyzed the impact of human capital on economic growth in Ethiopia covering 1975 and 2011 indicates that health and growth are positively related using the Auto-Regressive Distributed Lag (ARDL) approach to co-integration. Oloo et al (2013) alongside Hakooma and Seshamani (2017) in their investigation on human capital and economic growth relationship in Kenya (using the Ordinary Least Square approach) and Zambia (using Error Correction Model) respectively, all reported a positive relationship between health expenditure and economic growth. In addition, Wang et al (2019) studied the Dynamic linkages among CO_2 emissions, health expenditures and economic growth in Pakistan for the period 1995-2017. The ARDL results showed both short-run and long run relationships between health expenditures, CO_2 emissions and economic growth. The granger causality test further showed a bidirectional relationship between health expenditures and CO_2 emissions and between health expenditures and economic growth but shows a short-run unidirectional causality between CO_2 emissions and health related expenditures. Facchini & Seghezza (2018), in their study of Public spending structure, minimal state and economic growth in France found that only health spending amongst other social spending showed a positive and significant impact on the outputs of the country, the study further found that institutional quality expenditure on property rights has a greater impact on the economic growth of France within the study period, 1870-2010. More so, Bloom et al (2019) in their study on Health and economic growth found substantial positive impacts on economic growth at both micro and macro level estimates. The study further suggest that spending on health policies like vaccination programs, antibiotic distribution programs, and micronutrient supplementation schemes lead to large improvements in health outcomes which further translates to increased economic growth.

However, contrary to these positive results, few empirical studies on public health expenditure and growth link have reported negative relationships despite theoretical studies consistently reporting positive relationships. A notable negative outcome was reported by Ayoola et al (2012) when they investigated the relationship between health care expenditure and economic growth in Nigeria when they employed the multivariate cointegration technique using time series data from 1970 to 2009. They reported a negative and significant relationship. Eggoh et al (2015) used cross-section and dynamic panel techniques and found expenditures on health to have a negative impact on growth when he sampled 49 African countries. Another interesting study by Maduka et al (2016) reported that health is key to the general well-being of man and a necessary condition for productivity when they explored health expenditure-growth nexus. Wang and Lee (2018) also studied the impacts of life insurance asymmetrically on health expenditure and economic growth for 24 OECD countries from 1991 to 2012 using the dynamic panel threshold model. The study found an adverse relationship between health expenditure and economic growth in a high life insurance regime. While other governments across the globe are making remarkable progress in their healthcare services as they increase health expenditure, the Nigerian outcome (viz life expectancy and mortality rate) is regrettably and ridiculously low and thus considered to be among the poorest even though there has been a positive relationship, although insignificant. Akin to this, Udeorah et al (2018) examined this crucial topic relating health expenditure and growth and concluded that health care expenditure had no significant impact on economic growth from 1980 to 2016. Adeyemi and Ogunsola (2019) in their study on the impact of human capital development on growth in Nigeria suggested a negative relationship between public health expenditure and economic growth.

2.3 Gap in Literature and Value Addition

An appraisal of reviewed literature showed a notable gap in knowledge when it comes to the impact of health expenditure on growth in Nigeria with the presence of institutional quality. The majority of studies (such as Gebrehiwot, 2015; Hakooma and Seshamani, 2017; and Bloom et al, 2019) have investigated the impact of health expenditure on economic growth without considering the role of institutional quality on health expenditure-growth relationship. Thus, this study seeks to fill in the knowledge gap by incorporating the quality of institutions in the face of changes in health expenditure. Examining the interactive effect of health expenditure and institutional quality and subsequently the threshold level could help policymaker in designing policies that improves institutional quality above the threshold.

3. Methodology

3.1 Theoretical Framework

We shall use the AK model in its special case of a Cobb–Douglas production function because of its simplicity in analyzing the possible relationship among health expenditure, institutional quality and economic growth. The model is specified as;

$$Y = AK^{\alpha}L^{\varphi} \quad (1)$$

Where Y = total production in an economy; A = total factor productivity; K = capital; L = Labour, and the parameter measures the output elasticity of capital. Theoretically, the effect of health expenditure (HE) and institutional quality (IQ) on total production will operate through total factor productivity. We assume therefore that total factor productivity is a function of HE and IQ. Thus:

$$A = f(HE, IQ) = HE^{\beta_1} IQ^{\beta_2} \quad (2)$$

Substituting equation (2) into (1) gives

$$Y = HE^{\beta_1} IQ^{\beta_2} K^{\alpha} L^{\varphi} \quad (3)$$

where $\beta_1, \beta_2, \alpha, \varphi$ are constant elasticity coefficients of production with respect to HE, IQ, K, and L after the usual logarithmic transformation.

3.2 Model Specification

Following equation (3), the basic estimable equation is specified as:

$$LRGDP_t = \phi + \beta_1 LHE_t + \beta_2 IQ_t + \beta_3 \lambda_t + \varepsilon \quad (4)$$

Where; LRGDP = log of real gross domestic product (proxy for economic growth)
LHE = log of government recurrent health expenditure
IQ = institutional quality (proxied by control of corruption), λ = population growth
We will now model our equation to capture the interactive term that would ascertain the role of institutional quality on the effect of health expenditure and economic growth.

$$LRGDP_t = \phi + \beta_1 LHE_t + \beta_2 IQ_t + \beta_3 (LHE * IQ)_t + \beta_4 \lambda_t + RGDP_{t-1} + \varepsilon \quad (5)$$

Our area of interest is on the marginal effect of a change in health expenditure on economic growth and how the effect relies on the quality of infrastructure through interaction term. Thus, this marginal effect is computed using partial derivatives of equation with respect to LHE as;

$$\frac{\partial RGDP_t}{\partial LHE_t} = \beta_1 + \beta_3 IQ_t \quad (6)$$

By considering the possible signs of the coefficients in equation (6). If $\beta_1 > 0$ and $\beta_3 < 0$, it explains that health expenditure has a positive impact to RGDP and institutional quality counters that negative impact; but with $\beta_1 < 0$ and $\beta_3 > 0$, it simply means that health expenditure is a setback to economic growth while institutional quality tries to redeem the economic growth with its positive sign. In a case where both β_1 and β_3 are negative, it means that with a higher level of health expenditure, the economy will be cursed and institutional quality will intensify that curse; but if the two parameters turn out to have positive signs, an increase in health expenditure will be a blessing and institutional quality will further heighten the blessing in Nigeria.

To estimate equation (5), the study adopts the autoregressive distributed lag (ARDL) framework by Pesaran and Shin (1999) and further developed by Pesaran et al (2001). ARDL bounds test approach appears to have gained prominence recently for some of reasons. First is the problem of endogeneity and the inability to test hypotheses in the long run with limited coefficients connected to the Engle-Granger method are avoided, that is, it has superior statistical properties on small samples as it is relatively better measure in the case of small samples, while the Johansen co-integration techniques still require large data samples for the purpose of validity. Second, the long run and short run parameters of the model are estimated simultaneously. Lastly, whereas all the other methods require that the variables in a time series regression are integrated of same order, only that of Pesaran et al. (2001) could be used regardless of whether the underlying variables are either I(0), I(1), mixture of I(0) and I(1) or fractionally integrated. But it is important to ensure that the variables under consideration are not integrated at an order higher than one. Following Pesaran et al. (2001), a dynamic unrestricted error correction model (ECM) can be derived from the ARDL bounds testing by way of a simple linear transformation. The ECM integrates the short-run dynamics with the long-run equilibrium without losing any long-run information. Therefore, equation (5) is specified using ARDL-ECM framework as;

$$\Delta RGDP_t = \phi + \sum_{i=1}^{p} \alpha_i \Delta RGDP_{t-1} + \sum_{i=1}^{p} \eta_1 \Delta LHE_{t-1} + \sum_{i=1}^{p} \eta_2 \Delta IQ_{t-1} + \sum_{i=1}^{p} \eta_3 \Delta (LHE * IQ)_{t-1} +$$

$$\sum_{i=1}^{P} \eta_4 \Delta IQ_{t-1} + \theta_i RGDP_{t-1} + \beta_1 LHE_{t-1} + \beta_2 IQ_{t-1} + \beta_3 (LHE * IQ)_{t-1} + \beta_4 \lambda + \varepsilon_t \cdots\cdots\cdots\cdots\cdots\cdots (7)$$

Where Δ is first-difference operator and ***p*** is the optimal lag length. β's are long-run parameters while η is short-run parameters.

4. Results and Discussion of findings

4.1 Stationarity test

Variables	ADF t-statistic at levels	ADF 5% critical value	Adf t-statistic at 1st diff.	ADF 5% Critical Value at 1st diff.	Order of Integration
Log(RGDP)	0.685036	-2.94840	-4.57487	-2.95113	I(1)
Log(IQ)	-2.82266	-2.94840	-7.91307	-2.95113	I(1)
Log(HE)	-1.64544	-2.95113	-9.26414	-2.95113	I(1)
Log(HE*IQ)	-0.89484	-2.95113	-8.55397	-2.95113	I(1)
POPGR	-1.59785	-2.95113	-3.20024	-2.95113	I(1)

Note: The variables are integrated of order I(1), that is, they are stationary at the first difference.

4.2 Bound Test Cointegration Result

Test Statistic	Value	K
F- Statistic	5.175841	4
	Critical Value Bound	
Significance	I0 Bound	I1 Bound
5%	3.47	4.57

Note: K is the number of independent variables in the ARDL model

The bound test cointegration presented in the table above shows that at a 5% level of significance, there is clear evidence of cointegration as the F-statistic (5.175841) is greater than the upper (4.57) and the lower bound (3.47). The implication is that we reject the null hypothesis of no long-run relationship among the variables and conclude that there exist a long-run relationship between health expenditure, institutional quality, the interactive term and economic growth over the study period in Nigeria.

4.3 Auto Regressive Distributed Lag Model Result

Short-run coefficients (dependent variable real GDP)

Variable	**Coefficients**	**Std. Error**	**t-Statistic**	**Prob.**
D(RGDP(-1))	0.278732	0.150389	1.853403	0.0762
D(LHE)	-0.02942	0.028085	-1.047662	0.3052
D(IQ)	-0.95236*	0.370123	-2.573081	0.0167
D(LHE*IQ)	0.100898	0.052250	1.931042	0.0654
D(POPGR)	0.703674*	0.296646	2.372102	0.0260
D(@TREND)	0.027639*	0.007098	3.893858	0.0007
CointEq (-1)	-0.57231*	0.108122	-5.293199	0.0000

Long-run coefficients (dependent variable real GDP)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LHE	-0.117954	0.061942	-1.904258	0.0689
IQ	-1.664058*	0.648187	-2.567249	0.0169
LHE*IQ	0.230204*	0.106217	2.167292	0.0404
POPGR	1.229535*	0.442518	2.778498	0.0104
C	27.881698*	1.402892	19.874438	0.0000
@TREND	0.048294*	0.005888	8.201435	0.0000

Note: * denotes statistical significance at 5% significant level

The above result reports that health expenditure negatively affects economic growth in the short-run and long run. This result corroborates with that of Wang et al (2019) and Adeyemi and Ogunsola (2019) who explained in their papers that as growth increase, health expenditures decrease due to the improved income level of individuals. It also means that

when there is an increase in health-related expenses, it also affects the growth of the country negatively.

Institutional quality is also negatively related to the economic growth of Nigeria in the longrun and shortrun. Similarly Alexiou, Tsaliki and Osman (2014) opined that institutional quality environment (proxy by political freedom index) negatively affects Sudanese economic prosperity. This result is also in corroboration with Oluseun and Kazeem (2017) who also reported this negative relationship in the short run. Further studies by Adedotun and Oluwatosin (2018) also found control of corruption to exert a negative impact to economic growth, thereby contradicting the apriori expectation.

The interactive term (LHE*IQ) from our analysis suggests that with increase health expenditure and the quality of the institutions/expenditures (i.e. there are no leakages and allocated funds are channeled appropriately and effectively considering the economic cost and benefits of government investments) then the health expenditures would bring more economic prosperity. This report is similar to the findings of Rizvi (2019) who proxied institutional quality by government effectiveness and also reported a positive interactive effect between health expenditure and institutional quality.

The long run and short run results of population growth suggests a positive relationship with economic growth. The result is consistent with the finding of Tartiyus, Dauda and Peter (2015), Mahmud (2015), Olusogo, Oluwarotimi and Muazu (2018) and Sebikabu, Ruvuna and Ruzima (2020) who argue that there exist a positive and significant relationship between population growth and economic growth. However, these findings contrasts the works of Okwori, Ajegi, Ochinyabo, and Abu (2015), Abdullah et al (2015), and Guga et al (2015) who found population growth to negatively impact economic growth. This suggests that the increase in GDP of Nigeria over the years can be attributed to the high population growth rate which implies that Nigeria is one of the economies benefitting from huge population which contrasts the popular opinions that Nigeria's current economic struggle is caused by the large population (Olusogo, Oluwarotimi & Muazu, 2018). This increased population will add to the labour force and provide a large domestic market which its productive activities contribute to the nation's growth.

The error correction term that corrects the speed of adjustment back to equilibrium condition whenever there is a short-run disequilibrium is negative as expected. The significant value of -0.57 it carries confirms our earlier result of a longrun cointegration relationship among the variables of interest.

From the above results, having known the interactive effect of health expenditure and institutional quality on economic growth in Nigeria, we find the threshold by equating equation 4 to 0 (zero) thus: $\frac{\partial LRGDP}{\partial LHE} = B_1 + B_3IQ = 0$

$$-0.12 + 0.23IQ = 0$$

$$0.52 = IQ$$

This implies that the threshold level of institutional quality is pegged at 0.52. To determine whether the effect of health expenditure on economic growth differs with the level of IQ, we compute the marginal effect at various levels of IQ. From our descriptive statistics, we take the minimum (0.17) and maximum (0.7) level of institutional quality to estimate the growth of the economy in those two periods.

(i) When institutional quality is at minimum

$$\frac{\partial LRGDP}{\partial LHE} = B_1 + B_3IQ$$

$$= -0.12 + 0.23(0.17)$$

$$= -0.12 + 0.04$$

$$= -0.08$$

(ii) When institutional quality is at maximum

$$\frac{\partial LRGDP}{\partial LHE} = B_1 + B_3IQ$$

$$= -0.12 + 0.23(0.7)$$

$$= -0.12 + 0.16$$

$$= 0.04$$

As seen above, institutional quality at minimum level drags the economy into a negative growth at 0.08%. But at its maximum, it grows at 0.04%.

5 Conclusion and Policy Recommendations

As a result of the presence of cointegration among health expenditure, institutional quality, the interactive term, population, and economic growth, we go ahead to estimate for both short-run (error correction term) and long-run to estimate the effects of health expenditure, institutional quality, the interactive term and population growth on the economic growth of the country of our study. The short-run result shows that RGDP is explained significantly by the institutional quality and population growth. This means a percentage decrease in institutional quality improves the economy (RGDP) significantly by 0.95% in the short run in Nigeria. Population growth on the other hand suggests a positive and significant relationship where an increase in population boosts economic growth by 0.7%.

The long-run result of institutional quality is in the same direction with the short run that reports high institutional quality to be detrimental to the economy. As strange as it sounds, it conforms to the work of Arshad (2019) who reported a negative relationship between regulatory quality and economic growth when he studied Foreign Direct Investment, institutional quality and economic growth. This further corroborates with the findings of Nawaz and Khawaja (2019) who studied the Fiscal policy, Institutions and Growths among the 56 African countries and found fiscal policy to be insignificant in the whole countries but when separated into developed and developing economies found fiscal policy to be significant in the developed economies and insignificant in the developing economies of which Nigeria is among. This they concluded that institutional environments/quality contributes to either a positive or negative impact on economic growth. This means that in Nigeria when institutional quality increases, the economy suffers. This can be explained where temporary growth is achieved through the resource-abundant economies via rent-seeking activities. However, this result contradicts completely several empirical works of literature that report a positive relationship between institutional quality and growth. With this result that does not

reflect the apriori expectation is therefore an indication that the country still has a long way to go in fighting corruption. The findings further show that health expenditure also has a detrimental effect on economic growth in the long run. Similar to this, Eggoh et al. (2015), Adeyemi and Ogunsola (2019) and Wang and Lee (2018) reported a negative relationship between public health expenditure and growth. The finding is unusual and equally strange, however, it may not be unconnected with the structure of governance in Nigeria where the government is far away from the people and thus concealing her governance that is already shrouded in secrecy and mystery without the governed knowing the real fact and figures of the actual expenditures made. With this highly politicized and non-transparent nature of governance, there is often a disconnection between the government's effort in fighting corruption and actual corruption. An atmosphere like this raises deep concerns across the minds of the people as the quality of health infrastructure and equipment greatly falls below the budget allocation. This is made glaring for the public to see through several peaceful protests by health workers who are owed salaries and allowances for months; little wonder that experts dispute the published health expenditure data. Thus, it becomes a daunting task, if not an impossible mission to track and evaluate the precise health expenditure and how it affects the economy.

Another finding, in the long run, is the interactive effect (LHE*IQ) that accounts for a significant and positive impact on the economy. This can only be attained if the government exerts conscious efforts to maintain her institutional quality at the actual threshold level of 0.52, if not, there would be a backward growth of the economy. Finally, the government should engage her growing population into productive sectors of the economy since our results report that population growth and economic growth is positive and significantly related.

Policy Recommendations

a) Since population growth has positive impact on growth, more citizen participation in politics will also help to strengthen the capacity of relevant public institutions. Such public interest would put public officers under pressure to work better and thus move the institutional quality closer to our estimated 0.52 threshold level.

b) Social spending especially on health is vital for a country's economic growth. However, there should be an institutional reform that encourage transparency and accountability in the health sector. Such reform should encourage immediate follow-up of funds disbursed to the ministry to ensure it is spent judiciously. A proper monitoring and evaluation of public health expenditure will no doubt lead to economic growth and development.

c) The anti-graft agencies established to fight corruption should be independent as stipulated by law without any form of favouritism and nepotism in discharging their duties. A well-functioning anti-graft agency will enhance proper utilization of public health expenditure

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