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Impact of Corruption on Life Expectancy in Nigeria

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Abstract: *This study examines the impact of corruption on life expectancy in Nigeria from 1996 to 2020. Corruption perception index, poverty rate and government effectiveness were used as dimensions of independent variable while life expectancy was used as the dependent variable. Annual time series data on our targeted variables were obtained from secondary sources including the Central Bank of Nigeria annual statistical bulletin, World Bank development indicators (various years). The Eview9 Statistical Software was employed to analyze the data empirically. The Unit root test shows that life expectancy, corruption perception index and government effectiveness variables evaluated are all stationary after first difference I(1) while poverty rate was stationary at level I(0). The data were analyzed using the Autoregressive distributed lag (ARDL). The results of the ARDL estimates indicate that in the long run corruption perception index, poverty rate and government effectiveness are all positively signed. But it is only corruption perception index coefficient that is statistically significant. The study recommends amongst others that more funds should be made available to the health sector which has significant impact on the overall development of the nation. Also, Nigeria should step up her game in the fight against corruption so that as an independent nation which has the prospect to grow a well-off industrial economy that would be able to build world-class medical facilities for its citizens.*

Keywords: *Corruption, Life Expectancy, Poverty Rate, Government Effectiveness, Nigeria.*

INTRODUCTION

In Nigeria, corruption is one of the many unresolved fundamental problems that have critically retarded and skewed economic growth and development (Madichie, 2005). It has remained a major political and economic challenge for Nigeria. It ranges from petty corruption to political / bureaucratic corruption or systemic corruption (Abiodun, 2007). World Bank studies put corruption at over $1 trillion per year accounting for up to 12% of the GDP of nations like Nigeria, Kenya and Venezuela (Nwabuzor, 2005). Corruption is endemic as well as an enemy within (Acemoglu and Verdier, 2000). As part of effort at fighting corruption and strengthening the economy, Nigeria engaged in aggressive pursuit of economic reform that through privatization, banking sector reform, anti-corruption campaigns and establishment of clear and transparent fiscal standards since 1999.

The World Bank defines corruption as the abuse of public office for private gains. Public office is abused through rent seeking activities for private gain when an official accepts, solicits, or extorts

a bribe. Public office is also abused when private agents actively offer bribes to circumvent public policies and processes for competitive advantage and profit. Public office can also be abused for personal benefit even if no bribery occurs, through patronage and nepotism, the theft of state assets or the diversion of state resources (Basu et al, 1992). Nigeria like many developing countries has continued to face many social and economic problems. These include poor public spending on education and healthcare, high unemployment, low incomes and high level of poverty, rising insecurity, kidnapping, cattle rustling, and cultism, to mention but a few. A major factor that has been blamed for the poor standards of living in Nigeria is the massive corruption in the public sector. For instance, Abu (2015), submitted that corruption is deep-rooted in almost every segment/section of the Nigerian economy including the various arms of government (that is, executive, legislature and judiciary).

The ruling All Progressive Congress (APC) won the 2015 and 2019 presidential elections on the promise that it would tackle corruption headlong, fight insecurity as well as develop the economy. In addition, the President (Muhammadu Buhari) has repeatedly said that 'if Nigerians don't kill corruption, corruption will kill Nigeria. *According to the President, corruption at all levels was the biggest problem impeding Nigeria's economic growth and development. He* urged Nigerians to always see corruption in its true colour as a gross violation of human rights. According to him corruption is the major reason why millions of our people are in hardship, sick and helpless. The fight against corruption is, in reality, a struggle for nation-building and the future. It is not surprising therefore, that the government is investigating alleged embezzlement of over $2billion that was meant to prosecute the war against insurgency and Boko-Haram by cabinet members and high-ranking government officials including political associates of the previous administration, the People's Democratic Party (PDP). To this end, the former National Security Adviser (NSA) and Spokesperson of the PDP were apprehended and are currently standing trial. Similarly, the former Chief Justice of Nigeria (CJN) was suspended and was prosecuted for failing to declare his assets (properties and cash running into millions of dollars).

According to Transparency International, the 2019 Corruption Perceptions Index (CPI) shows corruption is more pervasive in countries where big money can flow freely into electoral campaigns and where governments listen only to the voices of wealthy or well-connected individuals. The index ranked 180 countries and territories by their perceived levels of public sector corruption, according to experts and business people. It uses a scale of zero to 100, where zero is highly corrupt and 100 is very clean. According to the report, more than two-thirds of countries scored below 50, with an average score of just 43. Similar to previous years, the data shows that despite some progress, a majority of countries are still failing to tackle public sector corruption effectively (Bamidele, 2020).

Bamidele (2020), opined that corruption remains one of the most endemic issues affecting development in Nigeria. Recently, President Muhammadu Buhari stated that corruption was the major factor responsible for the suffering of millions of Nigerians.

The aim of this study is to empirically investigate the impact of corruption on life expectancy in Nigeria within the period 1996 to 2020. However, it set out to achieve the following specific objectives which are to;

- investigate the impact of corruption on gross national income per capita;

- to find out the moderating impact of poverty rate on the relationship between corruption and gross national income per capita;
- to evaluate the moderating impact of government effectiveness on the relationship sbetween corruption and gross national income per capita.

LITERATURE REVIEW

Conceptual Clarification

The Concept of Corruption

The World Bank defines corruption as the abuse of public office for private gains. Public office is abused through rent seeking activities for private gain when an official accepts, solicits, or extorts a bribe. In an elaborate analysis, CBN (2006) categorized corruption into seven distinct headings: autogenic, defensive, extortive, investive, nepotistic, supportive, and transactive**.**

Autogenic: Corruption is self-generating and it involves the perpetrator only. A very good example would be what happens in a case of an insider trading. A person learns of some vital information that may influence stocks in a company and either quickly buys or gets rid of large amounts of stocks before the consequences arising from this information come to pass. **Defensive corruption:** it has to do with a person who is looking for a crucial service is forced to bribe in order to prevent unpalatable consequences being inflicted on his interests. For example, a person who wants to travel out of the country within a certain time period needs a passport in order to undertake the journey but is compelled to pay bribes or forfeit the trip. This personal corruption is in self-defense. **Extortive Corruption:** It happens when an individual is looking for personal compensation in exchange for services**. Investive corruption:** it has to do with the offer of goods or services without a direct link to any particular favor at the present, but in anticipation of future situations when the favor may be required. **Nepotistic corruption:** it entails the preferential treatment of, or unjustifiable appointment of friends or relations to public office, in violation of the accepted guidelines. **Supportive corruption:** it most times does not involve money or immediate gains, but involves actions taken to protect or strengthen the existing corruption. For example, a corrupt regime or official may try to prevent the election or appointment of an honest person or government for fear that the individual or the regime might be probed by the successor(s).**Transactive corruption:** it refers to situations where the both parties agree in mutual terms to willingly participate in the corrupt practice to the advantage of both parties. For example, a corrupt businessperson may willingly bribe a corrupt government official in order to win a tender for a particular contract. (Girling, 1997).

Causes of corruption in Nigeria: quite a number of factors have been identified as responsible for corrupt practices in Nigeria. These include, the nature of Nigeria's political economy, the weak institutions of government, and a dysfunctional legal system. Absence of clear rules and codes of ethics leads to abuse of discretionary power make most Nigerian vulnerable to corrupt practices. The country also has a culture of affluent and ostentatious living that expects much from "big men, "extended family pressures.

Corruption Perception Index (CPI).

Corruption perception index is a measure that rates countries on the basis of their perceived level of corruption, on a scale from 0 (highly corrupt) to 100 (clean). The CPI was created and used by Transparency International, an international nongovernmental organization established in 1993 with the aim of bringing together business, civil society, and government structures to combat corruption. The index was first used in 1995, and it covers a growing number of countries in annual surveys.

The measures focus on the public sector and evaluate the degree of corruption among public officials and politicians. Corruption is defined as an abuse of public position for private gain, which in practice usually means bribe taking. Because in corrupt countries the quality and independence of the judiciary and media are usually low, official statistics on corruption exposure and prosecution underestimate the level of corruption in more-corrupt countries. The CPI, being based on evaluations, is a valuable alternative source of information about the degree of illegal practices among civil servants and politicians in a given country (Natalia, 2020).

The Concept of Poverty Rate

Poverty as a multi-facet phenomenon, has no clear cut or universal accepted definition. Poverty is a state where an individual is not able to cater adequately for his or her basic needs of food, clothing and shelter (Kpelai, 2013). However, Eboh & Uma (2010), view poverty as "a lack of command over basic consumption needs", which means that there is an inadequate level of consumption giving rise to insufficient food, clothing or shelter, and moreover, the lack of certain capacities such as being able to participate with dignity in society. Genyi (2007), agrees that: Poverty has various manifestations including lack of income and productive resources sufficient to ensure sustainable livelihoods, hunger and malnutrition, ill-health, limited or lack of access to education and other basic services, increase morbidity from illness, homelessness and inadequate housing, unsafe environment, social discrimination and exclusion. It is also characterized by a lack of participation in decision and in civil, social and cultural life.

Poverty could either be absolute or relative. According to Onoja (2007), he views absolute poverty as a situation where levels of income are not sufficient enough to provide the basic necessities of life, on the other hand, he opines that relative poverty is a situation where an individual or region appears to have more than others in absolute poverty, yet has less than others in terms of income, property and other resources.

It should be noted that while corruption causes poverty, poverty can also cause corruption. In other words, corruption is a major cause of poverty as well as a barrier to overcoming it. This dual evil of corruption and poverty therefore becomes much more intrinsic and problematic since for one to go the other would have to go.

The Concept of Government Effectiveness

The Government Effectiveness rate captures the perceptions of the public services quality, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Countries are evaluated on the following factors:

- competence of civil service; effective implementation of government decisions; and public service vulnerability to political pressure;
- ability to manage political alternations without drastic policy changes or interruptions in government services;
- flexibility, learning, and innovation within the political leadership; ability to coordinate conflicting objectives into coherent policies;
- the efficiency of revenue mobilization and budget management;
- the quality of transportation infrastructure, telecommunications, electricity supply, public health care provision, and public schools; the availability of online government services;
- policy consistency; the extent to which government commitments are honored by new governments;
- prevalence of red tape; the degree to which bureaucratic delays hinder business activity;
- existence of a taxpayer service and information program, and an efficient and effective appeals mechanism;
- the extent to which:

Countries with more effective governments tend to achieve higher levels of economic growth and development by obtaining better credit ratings and attracting more investment, offering higher quality public services and encouraging higher levels of human capital accumulation, putting foreign aid resources to better use, accelerating technological innovation, and increasing the productivity of government spending. Efficiency in the delivery of public services also has a direct impact on poverty. On average, countries with more effective governments have better educational systems and more efficient health care (Lewis, 2006).

The Concept of Life Expectancy

Life expectancy which is one of the three dimensions of human development index is a measure of the length of life expected to be lived by an individual at birth. Improvement of Life expectancy to at least 70 years by 2020 is one of Nigeria's health policy targets. Life expectancy is frequently utilized and analyzed in the composition of demographic data for the countries of the world, for the attainment of mortality experiences and for more reliable international comparisons Julien (2009), noted that life expectancy has important implications for the individuals and aggregate human behavior. They noted that it has crucial effects on fertility behavior, economic growth and development, human capital investment, intergeneration transfers and incentives for pension benefits. Granstein and Kanganovich (2004), noted from the social planner's perspective that life expectancy has implication for public finance.

Life expectancy is very crucial to the developing worlds who are earnestly striving for achieving socio-economic progress through investing significantly in social sectors like health, education, sanitation, environmental management and sustainability, and social safety nets (Kabir, 2008). In

Nigeria, as in other developing countries, variations in morbidity and mortality have been associated with a wide variety of measures of socio-economic status including per capita GDP, fertility rate, adult illiteracy rate, per capita calorie intake, health care expenditure, access to portable drinking water, urban inhabitants, unemployment rate and the nominal exchange rate.

Theoretical Framework

There is no comprehensive theory that explains the linkage between corruption and its potential determinants. This makes it a bit difficult to come up with a theoretical model or employ an empirical method that is agreed to all researchers in examining the factors that affect corruption (Goel and Nelson, Nevertheless, researchers have relied on a few theories when attempting to investigate the determinants of corruption. One of the theories is;

'Grease the Wheels' and 'Sand the Wheels' Theory of Corruption and Economic Growth and Development by Leff Nathaniel (1964) and Mauro Paolo (1998).

'Grease the wheels' hypothesis of corruption and economic growth and development was proposed by Leff Nathaniel in 1964, while 'Sand the wheels' hypothesis was proposed by Mauro Paolo in 1998.

The debate on the effects of corruption on economic growth and development has been dominated by two widely recognized strands: the 'sand the wheels' and 'grease the wheels' hypotheses. According to Meon &Wiell (2010), these hypotheses are underpinned by the 'moralistic view' of corruption. These hypotheses are mainly based on the distinction between institutional failures and corruption. Proponents of 'grease the wheels' hypothesis argue that due to the economic and developmental benefits of corruption such as efficiency in second best world, it is better to judge the relationship between corruption and economic growth and development on moral grounds (Nye, 1967).

On the other hand, the opponents of Sand the wheels argued that corruption facilities trade that may not have happened otherwise and that it promotes efficiency by allowing private sector agent to circumvent cumbersome regulations (Leff, 1994: Meon and Well, 2010).

The so called Asian paradox (a positive correlation between corruption and economic growth and development in a number of fairly successful Asian economics, including China, even after accounting for the crucial intermediate effect of institution that shape the more recent versions of the greasing the wheels.

It was observed that China thrives despite corruption. From all indications, it is clear that corruption must have negative or positive effect on growth and development especially in developing countries like Nigeria. Relating this to our context, corruption might have a positive or negative effect on economic growth and development (Meon and Well, 2010).

The Theory of Healthcare Supply

The theory examines the divergence in the organization of healthcare supply from that of the normal theory of supply (Newhouse 1974). The consumer's lack of knowledge in the healthcare

market gives the producer of healthcare monopoly power in the health market. Newhouse (1974) looked into the theory of non-profit making hospital behavior. He suggested that non-profit making hospital maximize quality and quantity in the light of a zero profit. According to New House, the production is either for pure profit or pure patient welfare motivation. The decision makers of the hospitals are assumed to have two (2) major objectives which they aim to maximize. These two objectives are the quality and the quantity of care delivered.

Empirical Literature Review

Several efforts have been made to examine the major impact of corruption on life expectancy in Nigeria. A considerable number of the studies focused on a group of countries, and employed either cross-sectional or panel data in their analysis. In essence, studies focusing on the impact of corruption on life expectancy or health sector are not many. Besides, there are some recent empirical studies that have investigated the effects of corruption on life expectancy in Nigeria.

Riman and Akpan (2010), studied the direct causality between health expenditure and poverty incidence in Nigeria by employing the Granger causality test and vector error correction model (VECM) method of analysis. The study found strong causal bi-directional connections between life expectancy and poverty in Nigeria. The study drew an inference based on the finding that improvement in life expectancy could lead to poverty reduction and stimulate economic growth in Nigeria. More so, poverty reduction could lead to an improvement in life expectancy and improve output per head and general performance of the economy.

Bedir (2016) investigated the relationship between health expenditure and economic growth in developing countries. Using panel data for 16 countries, he found out that there is a rising health expenditure per capita in all countries in the panel. Moreover, the result revealed that health expenditure per capita grows rapidly than the capital income growth rate for the countries. The causality test showed that in Europe, Middle East and Russia, one-way causality exists from HEXP to INC and is found in Hungary and South Africa. A one-way causality exists from INC to HEXP for Greece, Poland, UAE and Indonesia. Empirically, the result has indicated that income to a greater extent explained the variation of health expenditure in the countries under study. It is evident therefore that the role played by this health expenditure in Nigeria was not given attention.

Akokuwebe and Adekanbi (2017) examines how corruption has impeded the service delivery in relation to diversion of drugs and how it has affected the increase of mortality (12.7 deaths/ 1000 population) in Nigeria in 2016. The study adopted a qualitative design and samples were drawn through systematic sampling technique. Data collected were in-depth interview with pharmacists, health practitioners and health management officials. A pre-tested interview guide was used as instrument of data collection and data were content analyzed. It was found that corruption in the health sector especially in the public hospitals has negative implications for service health delivery in Nigeria, the research however recommend that stringent measures should be taken to deal with corrupt health workers who are caught in one corrupt act or the other so that they can serve as deterrence to other potential perpetrators in the health sector.

Atake (2018), investigated the impact of health shocks in three sub-Sahara African countries (Burkina Faso, Niger and Togo) on poverty. The study made use of house surveys and adopted a three-step generalized feasible least square methods of analysis and findings that emanated from the study showed that health shocks resulted in poor health indicators and aggravated poverty incidence by 9.04, 33.69 and 69.03% in Burkina Faso, Niger and Togo, respectively. The study based on outcome concluded that poverty arising from health shocks is the cause of economic or growth loss in sub-Saharan Africa. Interestingly, the above reviewed study still points to the fact that the debate on life expectancy–poverty nexus is inconclusive. Therefore, it is imperative to determine the actual impact of health improvement on poverty incidence and as well determine whether or not the interaction of health with poverty helps to mitigate the adverse effects of poverty on economic growth.

METHODOLOGY

Model Design

The method adopted in this study is both descriptive and analytical on time series. The researcher adopted the quasi-experimental design called correlational research design which according to Hassan (1995), aims at establishing relationships between variables and to know if the relationship that exist is significant. Another justification for the use of quasi-experimental research design is that the study is descriptive and analytical on the basis of stochastic statistics and the variables are not under the control of the researcher.

Model Specification

Life Expectancy

The functional form on which the econometric model will be built is expressed as:

$$LEXP = F(CPI, GOVTEF, POVR) \quad 1$$

Where LEXP = Life expectancy, CPI = Corruption perception index, Government effectiveness, POVR= Poverty rate, F = Functional notation

LEXP is a dependent variable while
CPI, GOVTEF and POVR are the explanatory variables.
The linear regression models base on the above functional relation is expressed as:

$$LEXP = \beta_0 + \beta_1 CPI + \beta_2 POVR + \beta_3 GOVTEF + U \quad 2$$

$$\Delta LEXP_t = \alpha_{0i} + \beta_{1i} LEXP_{t-1} + \beta_{2i} CPI_{t-1} + \beta_{3i} POVR_{t-1} + \beta_{4i} GOVTEF_{t-1} + \sum^{q}_{i=1} \alpha_1 \Delta LEXP_{t-1} + \sum^{p1}_{i=1} \alpha_2 \Delta CPI_{t-1} + \sum^{p2}_{i=1} \alpha_3 \Delta POVR_{t-1} + \sum^{p3}_{i=1} \alpha_4 \Delta GOVTEF_{t-1} + {}_{t-1} + et \quad 3$$

ECM

$$\Delta LEXP_t = \alpha_{0i} + \sum^{q}_{i=1} \alpha_{1i} \Delta LEXP_{t-1} + \sum^{p1}_{i=1} \alpha_{2i} \Delta CPI_{t-1} + \sum^{p2}_{i=1} \alpha_{3i} \Delta POVR_{t-1} + \sum^{p3}_{i=1} \alpha_{4i} \Delta GOVTEF_{t-1} + \lambda ECT_{t-1} + et \quad 4$$

$\beta_1 \geq 0, \beta_2 \geq 0, \beta_3 \geq 0, \beta_4 \geq 0, \beta_5 \geq 0,$

Where β_0 is the regression constant or intercept,$\beta_1,\beta_2\beta_3\beta_4$and β_5 are the regression coefficients or parameters and U is the random variable. All other terms are as earlier defined.

Empirical Results and Discussions

Table 1: Augmented Dickey Fuller and Philips Perron Unit Root Test

Variable	ADF					PP				
	Level		1st Diff		I(.)	Level		1st Diff		I(.)
	Coeff.	5% CV	Coeff.	5% CV		Coeff.	5% CV	Coeff.	5% CV	
CPI	-2.182	-3.622	-5.779	-3.662	I(1)	-3.192	-3.612	-5.923	-3.622	I(1)
GOVTEF	-2.371	-3.645	-5.265	-3.645	I(1)	-2.408	-3.612	-6.888	-3.622	I(1)
POVR	-5.016	-3.658	_	_	I(0)	-3.621	-3.612	_	_	I(0)
LEXP	-1.549	-3.622	-5.737	-3.622	I(1)	-1.289	-2.992	-3.681	-3.612	I(1)

Table 1, shows the result of unit root test conducted with both Augmented Dicky Fuller Test (ADF) and Philips Perron Test (PP). To get a robust result for this empirical study, we adopted the outcome of Philip Perron statistics due to the robustness of the result in point of structural breaks. In line with the prepositions of Jenkins and Box (1970). Variable that are not stationary at levels would be made stationary after first difference. The following variables in the model were made stationary after first difference, CPI, GOVTEF and LEXP while POVR was stationary at level.

Table 2: Bound Test for LEXP Model

ARDL Bounds Test
Date: 15/04/23 Time: 20:17
Sample: 1998 2020
Included observations: 23
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	14.31161	3

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	3.47	4.45
5%	4.01	5.07
2.5%	4.52	5.62

1%	5.17	6.36

Source: Computed from E-view

The result presented in table 2, shows that the calculated F-statistics of 14.3116 is higher than the upper bound critical value of 5.07 at 5% significant level. Based on this result, it is concluded that a long run relationship exists among the variables of LEXP model. So, there is a long run co-integration amongst the variables in the life expectancy model.

Table 3: ARDL-ECM Short-run Results for LEXP model

Dependent Variable: LEXP
Selected Model: ARDL(2, 2, 2, 2)
Date: 15/04/23 Time: 20:37
Sample: 1996 2020
Included observations: 23

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LEXP(-1))	0.308675	0.146303	2.109829	0.0611
D(CPI)	0.012177	0.005278	2.307090	0.0437
D(CPI(-1))	-0.020935	0.005289	-3.958595	0.0027
D(POVR)	0.003137	0.004204	0.746106	0.4728
D(POVR(-1))	-0.004695	0.003132	-1.499033	0.1648
D(GOVTEF)	0.028388	0.039018	0.727569	0.4836
D(GOVTEF(-1))	-0.029229	0.039266	-0.744397	0.4738
D(@TREND())	0.155380	0.026181	5.934946	0.0001
CointEq(-1)	-0.407647	0.064925	-6.278763	0.0001

Cointeq = LEXP - (0.0805*CPI + 0.0268*POVR + 0.3850*GOVTEF + 42.1180
+ 0.3812*@TREND)

R-squared	0.744037	Mean dependent var	49.80040
Adjusted R-squared	0.707471	S.D. dependent var	3.072630
S.E. of regression	1.661861	Akaike info criterion	3.999400
Sum squared resid	57.99743	Schwarz criterion	4.194420
Log likelihood	-45.99250	Hannan-Quinn criter.	4.053490
F-statistic	20.34771	Durbin-Watson stat	1.856503
Prob(F-statistic)	0.000002		

Source: Computed from E-view9

Explanation of estimated short run for LEXP model

The result of the short – run dynamic regression for life expectancy model is presented in table 3. The regression result indicates that in the short run, all the variables have positive relationship with life expectancy but negative relationships for corruption perception index and poverty rate in lag one. What this means is, improvement in corruption perception index rating would lead to improvement in life expectancy. Also increase in government effectiveness would moderate the relationship between corruption and life expectancy. Though poverty rate is positive but it does not significantly moderate the relationship that exists between corruption and life expectancy. This means that poverty does not meaningfully pose any problem to life expectancy in Nigeria. What could be adduced for the positive relationship between life expectancy and poverty rate is the fact that there are other factors other than poverty that could negatively affect life expectancy such as high unemployment, pandemic, illiteracy, dearth of qualified health professionals, poor infrastructures etc. the positive causality could also be attributed to the fact that Nigerians see poverty as a way of life, irrespective of the treat it poses, they are still happy and healthy.

The ECM turned up with a negative value of -0.407963 as the ECM coefficient which suggests 40% speed of adjustment. This means that approximately 40% of discrepancy in the previous year is adjusted for the current year.

Table 4: ARDL Long Run Regression for Life Expectancy Model

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	0.080547	0.013321	6.046674	0.0001
POVR	0.026798	0.016005	1.674414	0.1250
GOVTEF	0.384961	0.192940	1.995240	0.0740
C	42.118007	1.220255	34.515729	0.0000
@TREND	0.381164	0.010929	34.876560	0.0000

Source: Computed from E-view

Explanation of the Estimated Long-run for LEXP Model

The result of the long run regression estimates for life expectancy model is presented in table 4. The regression estimates indicate that corruption perception index, poverty rate and government effectiveness are all positively signed. But it is only corruption perception index coefficient that is statistically significant. This indicates that in the long run, improvement in rating of corruption perception index would positively affect life expectancy and government effectiveness would significantly moderate the relationship that exists between corruption and life expectancy in Nigeria. However, poverty rate does not meaningfully or significantly moderate the relationship between corruption and life expectancy in the long run. This may be attributed to the fact that there are other factors other than poverty that could negatively affect life expectancy such as high unemployment, pandemic, illiteracy, dearth of qualified health professionals, poor infrastructures etc. other reasons that could be adduced why poverty is having a positive causality in life

expectancy in Nigeria is the fact that poverty has become a way of life. The citizens see poverty as a normal thing and choose to be happy.

Tables 4.6.1 Residual Diagnostics Test for LEXP

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.921884	Prob. F(11,11)	0.5524
Obs*R-squared	11.03258	Prob. Chi-Square(11)	0.4405
Scaled explained SS	1.196477	Prob. Chi-Square(11)	0.9999

Source: Computed from E-view

The null hypothesis states that there is no heteroskedasticity. Since each of the F-statistics probability value is greater than five percentage we cannot reject the null hypothesis of no heteroskedasticity. It thus mean that the result of the model can be taken seriously, that is the result is good.

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.635622	Prob. F(1,10)	0.2298
Obs*R-squared	3.233116	Prob. Chi-Square(1)	0.0722

Source: Computed from E-view

The null hypothesis states that there is no serial correlation. Since each of the F-statistics probability value is greater than five percentage we cannot reject the null hypothesis of no serial correlation. It means that the result is good.

4.4.1 Stability Tests for LEXP

The test is meant to test the appropriateness and stability of the estimated ECM model. This is to check if the coefficient of the model are stable and can be used for prediction. The stability test was conducted using the cumulative sum (CUSUM) and cumulative sum of square (CUSUMSQ) tests. If the plot of the CUSUM and CUSUMSQ for the model lies within the 5 percent critical bound it is suggestive that the model is stable. From our results, the model is stable.

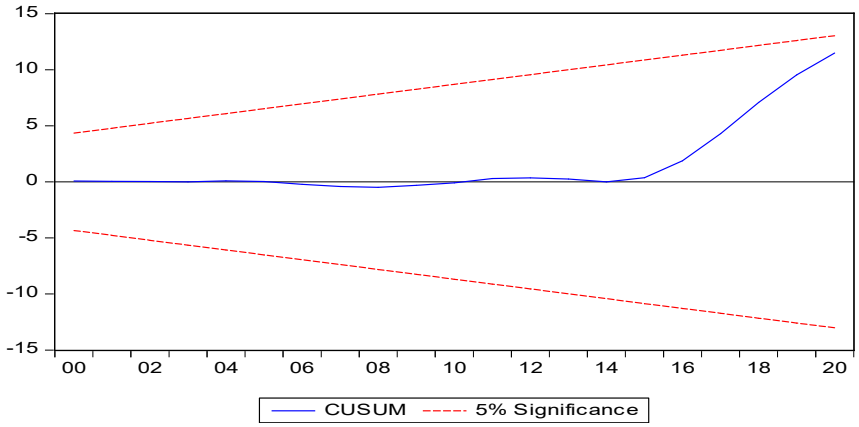

Figure 4.7A: Cumulative sum for LEXP Model

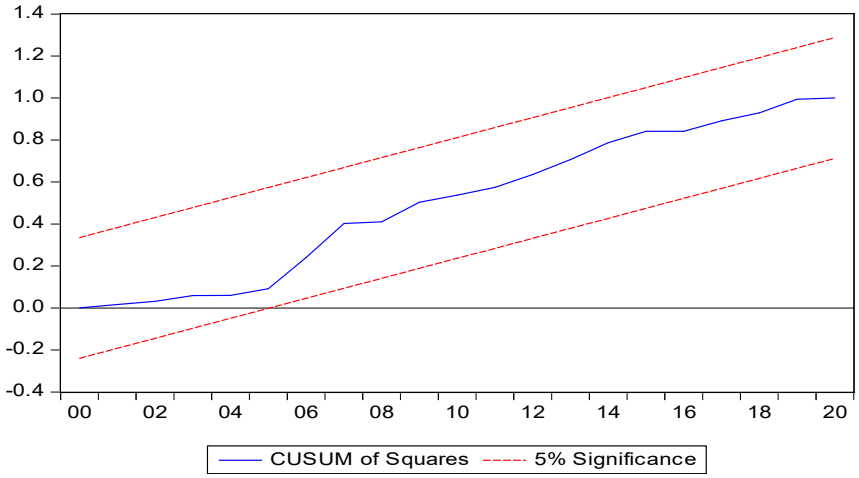

Figure 4.7B: Cumulative sum of Square for LEXP Model

Conclusion/Recommendations

(i) This study examined the impact of corruption on life expectancy in Nigeria from the period 1996 – 2020. The study investigated the long run and short run relationship between the variables by using Autoregressive distributed lag (ARDL). The empirical results show that life expectancy is influenced positively by corruption perception index, poverty rate and government effectiveness in both the long run and short run. The variables are also found to be statistically significant in the short run except poverty rate, while in the long run it is only corruption perception index that is statistically significant. The study recommends that more funds should be made available to the health and education sectors which have significant impact on the overall development of the nation. Also, our leader in government should show exemplary conducts by practicing good governance through transparency and accountability. Also, Nigeria should step up her game in the fight against corruption so that as an independent nation which has the prospect to grow a well-off industrial economy would be able to defeat

hunger, mass poverty, and create jobs for the jobless, build world-class medical facilities, and schools for better education, with top-notch infrastructure for its citizens.

REFERENCES

Abu, N. (2015). *The effects of corruption and political instability on savings*: *The case of the Economic Community of West African States* (An unpublished PhD Thesis submitted). Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia.

Acemoglu, D. &Verdier, T. (2000). The choice between market failures and corruption. *American Economic Review*, 90, 194-211.

Akokuwebe, M. E. & Adekanbi, D. M. (2017). Corruption in the health sector and implications for service delivery in Oyo State Public Hospitals. *Illorin Journal of Sociology,* 9 (1) 200-217

Atake E. (2018). Health shocks in sub-Saharan Africa: are the poor and uninsured households more vulnerable? *Heal Econ Rev.* 8(2):36–58.

Bamidele, S.A. (2020). *Nigeria ranks 146 on global corruption index in 2019.* https://nairametrics.com/2020/01/23/breaking-nigeria-ranks-146-on-global-corruption-index-in-2019/.

Basu, K., Bhattacharya, S. & Mishra, A. (1992). Notes on bribery and the control of corruption. *Journal of Public Economics 48(2), 349-359.*

Bedir, S. (2016). Healthcare expenditure and economic growth in developing countries. *Advances in Economics and Businesses* ,4 (2), 76-86

CBN, (2006). Annual report, Abuja: Central Bank of Nigeria

Eboh, F. E. & Uma, K. E. (2010). Rural infrastructural development: A panacea for poverty alleviation in Nigeria. *African Journal of Professional Research in Human Development, 6(3), 39-45.*

Genyi, M. E. (2007). *Poverty, good governance and development process in Nigeria*. Paper presented at the Abuja International Conference on Arts and Humanity between 3rd – 7th November at the University of Abuja.

Girling, J. (1997). Corruption, capitalism and democracy. London, Routledge.

Gradstein, M. &Kaganovich, M. (2004). Aging population and education finance *Public Econ* 88, 2469–2485.

Hassan, T. (1995). *Understanding research in education*. May field publishing company.

Jenkins, G. M. & Box G. E. P. (1970). *Time series analysis, forecasting and control*: San Francisco, Holding-Day.

Julien, B. (2009).*Life expectancy is essentially affected by wealth and education:* Revising the retirement age in social security is dangerous. Older Women's Economic Security Task Force. www.socialsecuritymatters.org.

Kabir, M. (2008). Determinants of life expectancy in developing countries. *Journal of Development Area*, 41:185–204.

Kpelai, S. T. (2013). An assessment of national poverty eradication programme on wealth creation in Benue State. *European Journal of Business and Management, 5(19), 167-180.*

Leff, N. H. (1964). Economic development through bureaucratic corruption. *Journal of American Behaviour Scientist,* 8(2), 8-14.

Lewis, A. (2006). *Corruption in word web*. Princeton University.

Madichie N. O. (2005). Corruption in Nigeria: How effective is the corruption perception index in highlighting the economic malaise? *World Review of Science, Technology and Sustainable Development,* 2(3), 320 – 335.

Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics 11(10), 681-712*.

Méon, P. & Weill L. (2010). Is corruption an efficient grease? *World Development*, 38(3), 244-259.

Natalia, L. (2020).*Corruption perceptions index: International public sector evaluation.* https://www.britannica.com/topic/corruption-perceptions-index.

Nwabuzor, A. (2005). Corruption and development: New Initiatives in economic openness and strengthened Rule of Law. *Ethics, a publication of Springer*, 59(18), 121-138.

Nye, N.S. (1967). Corruption and political development: A cost-benefit analysis. *American Political Science Review* 61, 417-427. Reprint in A.J. Heidenheimer. M . Johnston and

VT. LeVine (Eds.). Political corruption: A handbook. 963-984, 1989. Oxford. Transaction Books.

Onoja, A. O. (2007). *Poverty dimensions and policies of rural poverty reduction in Nigeria in Okpe*. The Middle- Belt in the shadow of Nigeria Makurdi. Oracle Business Ltd.

Riman, H. B. & Akpan, E. S. (2010). Causality between poverty, health expenditure and health status. Evidence from Nigeria using VEloCM. *European Journal of Economics, Finance and Administrative Sciences,* 6(2), 17-34.-