FISCAL POLICY- QUALITY OF LIFE NEXUS: DOES INSTITUTIONAL ENVIRONMENT MATTER?

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ABSTRACT
The study examines the impact of government expenditure on quality of life in Nigeria for the period of 1980 to 2022 using annual data from the World Development Indicators (WDI, 2022) of the World Bank. National Bureau of statistics (NBS, 2022) and Central Bank of Nigerian statistical bulletin (2022). Autoregressive Distributive Lag Model (ARDL) and the Toda-Yamamoto causality test were employed for the analysis. In the long run, all the variables are statistically significant except for corruption and gross domestic product. In the short run, all the variables are statistically significant and well signed, except for the quality of environment which is negatively related to the quality of life in Nigeria. The causality test shows a uni-directional causality between government expenditure and the quality of life in Nigeria while a bi-directional causality was running from quality of life and government expenditure in Nigeria. the study therefore recommends that government is encourage to exhibit fiscal discipline and be guided by fiscal rule by channeling more resources to areas affected to prevent further environmental degradation in Nigeria. the study recommends that government in Nigeria should try to meet up with the United Nations required budget allocation on education sector in order to increase more investments in education can also improve on the funding of existing educational institutions and this will bring out more quality graduates, this ton a large extent will improve the quality of life of the people in return.
Keywords: Government expenditure, corruption, quality of life and ARDL
Jel Classification: J24, H51, D74 and I31

1. INTRODUCTION
Creating conditions for improvement of the quality of people's life, despite the normative differences among economists and political decision makers, is unanimously believed to be the basic responsibility of every government (Balcerzak & Pietrzak, 2015). To achieve such improvement, government allocates necessary resources to the affected sectors in the form of government expenditures. However, some expenditures like the expenditures on infrastructure, public health, education, consumption etc., may also be seen as a necessary condition for productivity (Scully, 2001). Government expenditure remains an important demand management tool and if well managed, it could put an economy on a long-term sustainable growth and developmental trajectory. A responsible government spending, through efficient allocation of resources to various sectors of the economy leads to an overall and sustainable growth pattern, which serves as a driver of eliminating poverty and inequality within the society, hence, improving people's quality of life (Akanbi, 2014). From 1980 to 2022, Nigerian economy has grown from the level of millions of naira to billions of naira and postulating to trillions of naira on the expenditure side of the budget. For instance, government expenditures

between 1981 to 1990 had an increased difference of 48.86 billion, between 1990 to 2000 a difference of 640.79 billion, while in the period between 2000 to 2005 a difference of 1121.04 billion, in 2010 to 2015 a difference of 794.28 billion and between 2015 to 2022 a difference of 47,332.44 billion were observed as the changes (CBN, 2022). If the economy is experiencing surplus or equilibrium on the records of balance of payment, and there are infrastructures to promote commerce with the system or social amenities to raise the quality of life of average citizen of the economy, it won't have been surprising. All these are not there, yet we always have a bloated estimated expenditure. This is evidence that something is definitely wrong (Taiwo & Abayomi, 2021). Despite the continuous rise in the government expenditures, the standard of living of the citizenry and their quality of life seems to be deteriorating (Gukat & Ogboru, 2019). This is evident by high rates of unemployment, illiteracy rate, and the number of its citizens who continue to wallop in abject poverty, while more than 65% of its people live on less than US$1 per day. As high as 70% of Nigerians also still lack medical care, do not have access to clean and portable water and basic needs of live (WHO, 2021).

Empirically, divergent impact of government expenditure on welfare (quality of life) is found in different studies using different methods and datasets. While Kasmaoui and Bourhaba (2022) discovered a positive impact of government expenditure on quality of life. On the other hand, Perovic and Golem (2010) suggest that public spending and quality of life have a non-linear relationship. Bjørnskov, Dreher, and Fischer (2007) suggested that government size, represented by the ratio of government expenditure in GDP, has negative impacts on life satisfaction.

In the macroeconomic literature, improvements in quality of life are emphasized as critical to economic outcome and development (López-Casasnovas, Rivera & Currais, 2005). In light of this, Africa's quest for inclusive sustainable development will benefit from the imperative of a healthy population, given the role of good quality of life 'consumption and production. In poor countries where resources are relatively scarce, government expenditure has hardly received the desired attention in national budgets Okonkwo et al. (2023). Despite the imperatives of fiscal policy to development, Africa has fared poorly in terms of quality of life, even though poor countries have generally paid less for the component of good quality of life. For example, Africa accounted for a paltry 3% of the world 's health expenditure, although it contained about 10% of the world 's population, compared to Asia and the Pacific (including China), which had about 30% of the world's population, while it accounted for only 4% of the world's health expenditure (Poullier, Hernandez, Kawabata & Savedoff, 2002; WHO, 2015). By improving quality of life in Africa, its citizens may be able to contribute to the economy through four mechanisms as identified by Bloom and Canning (2003), namely: greater productivity at the workplace, leading to improved income, (ii) ability to retire later and work much longer due to overall good health, (iii) more likelihood at investing in their own education and training, resulting in enhanced productivity; and (iv) greater capacity to save and invest more with the expectation of a longer life. Interestingly, Africa has compared relatively poorer than virtually other regions of the world in several indicators of the quality of life, including life expectancy Anjade, Ahemen, and Ijirshar (2020).

Fiscal policy is geared towards making the life of the populace better, this is the only way the quality of life can be engineered by adequate expenditures on critical areas. Given the long-term objectives of development such as poverty reduction, human development, and sustainability, the imperative of the overall status of fiscal policy in any country cannot be overemphasized. In this context, this paper investigates the nexus between fiscal policy and quality of life and whether institutional environment matters. Additionally, the debate on the relationship between government expenditure and the quality of life is still inconclusive (Novignon, Olakojo & Nonvignon, 2016), and therefore remains an empirical question. This study contributes to this debate methodologically using the ARDL technique. Importantly, it

considers the impact of corruption in the fiscal policy- quality of life nexus for Nigeria, a novelty in the empirics. A major point of departure from other previous, also, the study is motivated to determine the direction of causality between quality of life and government expenditure, also, structural break test to determine the stochastic properties of the data employed and to ensure if there is break in series, a neglect might have significant effect on the validity of inference. Following the introductory section of the paper, section 2 contains the review of literature, section 3 contains the data employed in the study, in section 4 the empirical result is presented and the paper is concluded in section 5.

2. LITERATURE REVIEW

Conceptual Literature Review

According to Taiwo (2012), government expenditure is a fiscal instrument which is used to control inflation, depression, unemployment, foreign exchange rate stability and balance of payment equilibrium. In addition, Government expenditure refers to the purchase of goods and services, which include public consumption and public investment and transfer payments consisting of income transfers (pensions, social benefits) and capital transfers. Ogba, (1999), asserted capital expenditures are investments with multiplier effects on the economy in terms of public benefits. In most cases government intervention has brought stability in income and employment in the economy. Public expenditure is therefore an important tool that brings about egalitarian society through the provision of welfare facilities (Ogba, 1999).

Lehman (2002) defined quality of life as the sense of well-being and satisfaction that an individual feels under his current circumstances. McCall (1975) defines quality of life as 'necessary conditions for happiness. While, Terhune (1973) defined it as subjective satisfaction itself. According to UNESCO (1990), the concept of quality of life is a comprehensive concept comprising all aspects of life as perceived by individuals. For this study, quality of life is seen as individuals' perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns.

2.1 Theoretical Literature

This paper is rooted in a set of inter-related theories in terms of the key variables which are fiscal policy proxied by government expenditures and quality of life. These theories are; Keynes (1936) theory of government expenditure, Peacock and Wiseman (1961) theory of government expenditure, and Sen (1985) Theory of human development (quality of life). Keynesian theory of government expenditure postulates that government can avert depression by increasing aggregate demand and lowering taxes and its multiplier effects can stimulate the entire economy. This multiplier effect shows the causality from public expenditure to national income. From Keynesian thought, public expenditure can contribute to economic growth. Thus; economic growth is a function of government expenditure. However, from Peacock and Wiseman theory of government expenditure, there is a need for government to increase taxes to raise revenue to solve any social disturbances or any other disturbances in the economy. These social disturbances may include war, famine, environmental degradation, drought, extreme poverty, etc. this directly implies that government can tackle these social vices (poor quality of life) through government expenditure increase.

2.2 Empirical Literature

On the empirical front, it has been found that good quality of life results from sound fiscal policy and institutional quality, several literatures have lend credence to the significant of government expenditure and the quality of life. Karuna, Sourafel, Oliver and Verschoor (2013) examined Aids, public spending and Welfare; Evidence from Quantile Regression. The study used quantile regressions and report evidence that aid is associated with higher human

development and lower infant mortality which are indicators of aggregate welfare. It suggests that by financing public expenditures that increase welfare indicators, aid can enhance human development. In a similar work by Balcerzak and Pietrzak (2015) who investigated research and development expenditures and quality of life in European union countries from 2004-2010. Human Development Index was utilized. Panel data mythology fulfilling the postulates of dynamic estimation was used. The results confirmed the usefulness of HDI as a measure of quality of life also from the perspective of narrow group of highly developed countries. The study finds a positive influence of R&D on European welfare only in the case of highly developed "old member".

Mpofu (2016) examined the standard of living, quality of life and per capita GDP in South Africa. The study treated quality of life (QoL) using HDI as measure of quality of life, the per capita income and standard of living were investigated in relation to the role of government in its public expenditure programmes and how these programmes in turn influenced quality of life. Using data on government expenditure of South Africa for the period 1995 to 2011. The findings as supported by Temidayo et al (2022) indicated that there is a significant correlation between HDI and government spending on health and education as a percentage of GDP. Again. Gangal and Agarwal (2017) investigated well-being and public expenditures in Indian economy. VAR and panel model analysis was used to analyze the data. The study found that public expenditures have a positive impact on well-being in India. Also, Tella and Mac-Culloch (2005) in a study of 10 OECD countries found a positive but insignificant effect of government consumption on satisfaction of life. Sango-Coker and Bein (2018) examined the impact of healthcare spending on life expectancy: Evidence from selected West African countries. Using Data from World Bank Indicators within the period of 16 years (from 1999 - 2014). Using pooled regression and pairwise correlation, empirical results were obtained. Female population lived longer than the male population and a positive relationship was obtained between the variables of healthcare spending and life expectancy for the public healthcare sector. Hamoudi and Bendhina (2019) used the VAR model to investigate the determination of the public housing expenditure policy and its impact on the quality of life in Algeria (1963-2017). The study found out that the concept of quality of life (QOL) has become a very important dimension as a measure in the development of any society; specially housing. In parallel, housing as a service and as target has become a very important dimension for the Algerian society to improve the living conditions of citizens.

Ogbuagu and Ewubare (2019) employed OLS method of estimation on a range of equation models: vector error correction model and the impulse responses function model to ascertain the long run and short run impact of three component of government expenditure (education, health, and consumption expenditure) on standard of living in Nigeria with time series data from 1981 to 2017. The short run coefficient results revealed that education expenditure in both lag 1 and 2 have a positive and significant impact on standard of living, while health and consumption expenditure have insignificant impact on standard of living in Nigeria findings of this study was supported by Sebil, (2023).

Ubong and Godwin (2020) examined the effect of government health expenditure on quality of life in Nigeria. Dickey-fuller test and Autoregressive Distributed Lag model (ARDL) was employed in the study. The study found that there is a long-run relationship between government expenditure on health and life expectancy. Similarly, Ruzima and Veerachamy (2021) examined the effect of public spending on education and health sectors on human development in India. The ARDL model technique was used for data analysis. In the long run, the findings showed that public expenditure on health and education has positive and negative significant effects, respectively, on human development in India. In the short run, results indicated that the public expenditure on health and education has positive and negative insignificant impacts respectively on human development in India. This finding was also

supported by Ikubor, et al. (2022). Moreso, Effiong and Bassey (2022) examined the effect of government expenditure on health on the quality of life in Nigeria. The paper employed World Development Indicators for the period 1981 to 2018. Augmented Dickey-Fuller test which revealed a mixed order of integration. The Autoregressive Distributed Lag (ARDL) model was employed in the study. The result indicated a long run relationship between government expenditure on health and life expectancy.

In terms of corruption as an institutional indicator, the evidence in the literature is that it adversely affects quality of life. Gupta, Davoodi and Tiongson (2000) reported that corruption indicators had negative association with quality of life, Although the correlation between corruption and government expenditure reduced after controlling for institution and health expenditure, it was still significant. Similarly, Rajkumar and Swaroop (2002) found that the effectiveness of fiscal policy in reducing low quality of life is dependent on the integrity rating (1-5 range based on corruption perception level), with high integrity associated with lower quality of life, even after controlling for several factors including GDP per capita, population growth, and human capital index. However, Filmer and Pritchett (1999) using country-level cross sectional data investigated the impact of both public expenditure on healthcare and non-health factors on quality of life and reported that government expenditure on healthcare did not affect quality of life across countries, as 95% of the variation in quality of life were due to factors other than healthcare spending. From the literature reviewed, it can be seen that most of the studies on government expenditure were carried out without considering the role of the institutional environment and openness.

3. METHODOLOGY

Data for this study will include time series annual data on Human Development Index, carbon (iv) oxide per capita, per capita income, corruption, government expenditure on health, education, capital and general macroeconomic condition; all of which will be obtained and compiled from the World Development Indicator (World Bank, 2020) of the World Bank, National Bureau of Statistics (NBS, 2020), and Central Bank of Nigeria (2020).In line with the above theoretical framework, the relationship between government expenditures and quality of life is presented in a simple model. However, the following model is specified in an attempt to determine the impact of government expenditure on quality of Life in Nigeria.

$$QOL = f(HEXP, EEXP, CAPEX, CO2,\ PCI, COR) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.1)$$

Equation 3.1 indicates that the quality of life is a function of government expenditure on health, education, capital, environment represented by carbon (IV) Oxide per capita, real income by Per Capita Income and corruption. However, in order to capture the influence of the stochastic or random variables, the equation is explicitly transformed as:

$$QOL_t = \beta_0 + \beta_1 HEXP_t + \beta_2 EEXP_t + \beta_3 CAPEX_t + \beta_4 \text{CO2}_{\ t} + \beta 5 PCI_t + COR + \mu \dots\dots (3.2)$$

Where: QOL = Quality of life, HEXP = Health Expenditure, EEXP = Education Expenditure CO_2 = Carbon (IV) Oxide Per Capita, CAPEX= Capital Expenditure, PCI =Per Capita Income COR= Corruption as the control variable, β_0, β_1, β_2, β_3, β_4 β_5= Parameter Estimates, μ = Error Term, assumed to be a white noise, t = Time

Variable Definition and Justification

Human Development Index (HDI) offers a global perspective on the question of how well people are living. It was devised by the United Nations in the 1990s, and is a composite of three different indicators: (1) Health as measured by life expectancy at birth, (2) Education as measured by mean years of schooling and average years of schooling, and, (3) standard of living as measured gross national income per capita, quality of life and welfare of citizens has been defined much broader than the simplified approach concentrating on GDP per capita or

GDP growth commonly accepted centuries ago. Yet there is a generally accepted measure for standard of living that economists refer to as the average real gross domestic product (GDP) per capita. But as a tool for measuring how well people live, GDP per capita has its shortcomings. Real GDP per capita, a measure of a country's output of goods and services per person, is often used as a proxy for living standards or well-being. Corruption: This was used a proxy of the institutional environment, captured in the corruption perception index (CPI). The inclusion of this variable in this study is a novel approach to the determinants of life expectancy, especially in the context of Africa, where institutions are relatively poor compared to other regions of the world and where democratic norms have hardly been entrenched. CO2: This is used as a measure of environmental quality. Poor environmental quality embodied for instance in rising pollution can adversely affect health. Epidemiological studies show that air pollution combustion adversely affects four categories of human disease categories, including chronic respiratory disease, cardiovascular disease, diabetes mellitus and cancer.

The Augmented Dickey Fuller (ADF), KPSS and Phillip Perron (PP) tests are used to avoid spurious regression thereby subjecting each of the variables used to unit root test so as to determine their orders of integration since unit root problem is a common feature of most time series data. The study adopts the Autoregressive Distributed Lag (ARDL) to test hypotheses as established by Pesaran, Shin and Smith in 1998. Also, an array of diagnostic tests was conducted on the ARDL model to guarantee that the basic assumptions are not violated. The bound testing technique has definite econometric advantages in comparison to other methods of co-integration such as: (i) Variables of the model are anticipated to be endogenous. (ii) The short-run and long-run coefficients of the model are estimated simultaneously. (iii) The technique allows different optimal lags of variables (iv) This technique engages only a single reduced form equation (Bhatta, 2013). The ARDL bound test is based on the (F-statistic). The asymptotic distribution of the (F-statistic) is non-standard under the null hypothesis of no co-integration among the variables. The critical values are given by Pesaran, Shin & Smith (2001) for the co-integration test. If the computed F-statistic is greater than the upper bound critical value of 5%, then the H_0 is rejected (the variables are co-integrated). If the F-statistic is below the lower bound critical value of 5%, then the H_0 cannot be rejected (the variables are not co-integrated). When the computed F-statistic falls between the lower and upper bounds, then the results are (inconclusive). When cointegration is established, then the second step involves the estimation of the long-run relationship, which is given by:

$$\mathrm{QOL}_t = \Psi_0 + \sum_{i=1}^{p} \beta_j QOL_{t-j} + \sum_{i=0}^{q} \delta_j HEXP_{t-j} + \sum_{i=0}^{q} \alpha_j EEXP_{t-j} + \sum_{i=0}^{q} \eta_j CAPEXP_{t-j} + \sum_{i=0}^{q} \vartheta_j CO2_{t-j} + \sum_{i=0}^{q} \gamma_j PCI + \sum_{i=0}^{q} \gamma_j COR + \mu_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.3)$$

Where; ψo is the constant and $\beta_j, \delta_j, \alpha_j, \gamma_j, \eta_j, \vartheta_j$ are the parameters to be estimated and μ_t is the white noise. The Toda Yamamoto (1995) framework is employed for testing the causality. This approach does not require the variables to be stationary at level or first difference, co-integrated or not co-integrated. T-Y causality is valid irrespective of whether the variables are I(0) or I(1), non-co-integrated or co-integrated of any uniform order of integration (Wolde-Rufael, 2005).

The diagnostic test statistics that were considered including variable misspecification test for serial correlation, normality and heteroskedasticty test, goodness-of-fit captured with adjusted coefficient of determination (adjusted R^2), the joint significant of estimated coefficient using the F-statistic. The serial correlation langrage multiplier test was captured by the Breusch-Godfrey serial correlation test, heteroskedacticity test using the ARCH tests and normality test using the Jarque-Bera (JB) statistic to find out if the residuals are multivariate normal. Finally, to determine that stability of the estimated coefficient of the fiscal policy and economic growth equation for Nigeria, the cumulative sum recursive (CUSUM) and cumulative sum of recursive

residual (CUSUMSQ) test developed by Brown et al (1975) was also implemented, in line with Pesaran et al, (2001) ARDL procedure.

4. **R ESULTS AND DISCUSSIONS OF FINDINGS**

The descriptive statistics of the variables used in the study is presented in appendix 1. According to the result of the summary statistics, the mean and median values falls within the range of maximum and minimum values, indicating that the degree of accuracy of the data used. For each series presented above, the maximum and minimum values provided under row maximum and minimum values respectively. In addition, CEXP appears to be the most dispersed variable among the series with 548.5422 standard deviation, while CO2EXP and HDI are the least disperse variables in the distribution at a standard deviation of 0.0080417 and 0.0071497. In the same vein, CORRP also maintain a least standard deviation with 0.097172. the values of the skewness of CEXP, CO2EMP, HEXP and GDPPC with corresponding positive value of 1.099330, 0.4356666,0.988874, and 0.006315 indicates that the affected variables are positively skewed to the right while HDI, CORRP and EDUEXP are negatively skewed to the left with corresponding negative values of -1.785392, -0.002342 and -0.968818. Furthermore, the result of the kurtosis shows that CEXP, CO2EMP, and EXPEDU with corresponding value of is 3.978, 3.287 and 3.308 indicating a mesokutic shape, while HDI, HEXP, CORRP and GDPPC with a corresponding value of 6.460 and 2.798.

Table 4.1: Unit Root Test Result

Variable	ADF	PP	KPSS
LOCEXP	-2.3376**	-2.2594**	0.1598
CO2EMP	-2.0011	-1.7807	0.5928**
CORRP	-2.662	-2.7231	0.0729*
EXPEDU	-1.5079	-1.1968	0.2124*
GDPPC	0.8543	-1.6988	0.1231**
HDI	-1.5927	-1.3168	0.1397
HEXP	-1.2247	-1.430	0.2238*
ΔLOGCAEXP	-6.3663*	-6.3298*	0.06717
ΔCO2EMP	-5.6304**	-5.8775*	0.0782
ΔCORRP	-3.8002*	-5.2984**	0.0563
ΔEXPEDU	-3.7587**	-5.0228*	0.0469
ΔGDPPC	-2.0639**	-1.8739***	0.2004
ΔHDI	-6.7858*	-6.6743*	0.3112
ΔHEXP	-3.7912**	-8.6609*	0.0801
ΔCO2EMP	-5.6304**	-5.8775*	0.0782

Note: *, **, and *** indicate significance at 1%, 5% and 10% level respectively.

Source: Author's computation

The table 4.1 presents the unit root result for stationary testing of ADF, PP and KPSS test with trend and intercept, in line with the result, HDI, CO2EMP, CORRP, EXPEDU, GDPPC and HEXP are all found to be stationary at first difference that is I(1) while LOCEXP was stationary at level that is I(0). The implication of this is that the aforementioned series indicates rejection of null hypothesis which states that the series has unit root, implying that the series were non-stationary at levels which means that the null hypotheses is rejected. Consequently, LOCEXP exhibit acceptance of the null hypotheses that the series has a unit root at levels, thereby confirming that the alternate is not true, this had therefore satisfied the precondition for employing the autoregressive distributive lag model (ARDL) for testing the validity of model.

Given the fact that traditional unit root, have been shown to exhibit low power in the presence of structural breaks which may be due to small sample size only one unit roots test in the presence of structural breaks is considered in the study that is Zivots and Andrews (1992). with trend and intercept in the presence of structural breaks is presented in table 4.3

Table 4.2: Structural Break Test

Variable	BPD	T-STATISTUCS
HDI	2002	-8.4858*
CO2EMP	1997	-3.9780
CORRP	2005	-6.1267*
LOGEDUEXP	2004	4.9849**
LOGCEXP	2014	-3.8623
LOGGDPPC	2018	-3.1529

Note *, **, *** denotes 1%, 5% and 10% significance levels. Note: BPD is the Break Point year.
Source: Authors computation using EViews 10

The implication of the result obtained from the structural break test is that, different variable have different structural break point and break date, this imply that there has been many instances where government expenditure has affected the quality life in Nigeria. Specifically, the quality of environment, capital expenditure are expected to improve the quality life in Nigeria, per capital income and health expenditure has been a serious factor militating against the quality of life of the people in Nigeria. Consequently, the results of these unit-root tests both traditional unit root and unit root with structural break indicate that for modeling and the empirical investigations between government expenditure and the quality of life in Nigeria. The mix of the I(0) and I(1) variables included within the same modelling framework support the use of autoregressive distributed lag (i.e. ARDL) model.

Estimated Coefficients

TABLE 4.3: Long Run Estimates

Variable	Coefficient	Standard error	T- statistics	P-value
HDI(-1)	-1.6389	0.1698	-9.6499	0.0000***
LOGEDUEXP(1)	0.1295	0.0199	6.4842	0.0003***
LOGGDPPC(-1)	0.0213	0.0603	0.3529	0.7345
HEXP(-1)	0.000124	4.1105	3.0119	0.0196**
LOGCEXP	0.07624	0.01814	4.2020	0.0040*
CO2EMP	-0.1239	0.0391	-3.1703	0.0157**
CORRP	0.0580	0.0342	1.6988	0.1332
DUM-HDI	-0.0379	0.0135	-2.7951	0.0267**

R^2 = 0.99, Adjusted R^2= 0.98, F- statistics= 108.2872(0.000001) Dubin waston = 2.2882
Note *, **, *** denotes 1%, 5% and 10% significance levels. Note: BPD is the Break Point year.
Source: Authors computation using E-Views 10

The result of the long run estimates as detailed in table 4.3 above, shows that the dummy variable used to capture the structural breaks in the model proxied as Dummy-HDI, is statistically significant at 5% significant level, with coefficient of -0.0379 and standard error of 0.0135, with T- statistics of -2.7951 and corresponding probability value of 0.0267. This clearly shows that the addition of another explanatory variable to explain the structural break pattern is well justified in the model at 5 % significant level. Similarly, a one lag period of human development index clearly shows that a positive variation in human development index in Nigeria is not likely to be induced by the changes in the past. With coefficient of -1.6389, standard error of 4.1105, T- statistics of -9-6499 and the probability value of 0.0000, which is significant at 10 percent significant level. In the same vein, in the long run, all the variables are statistically significant except for corruption (proxied as CORRP) and gross domestic product (proxied as GDPPC). The result further revealed that the quality of environment and capital expenditure at levels significantly affect the quality of life in Nigeria. With coefficient value of -0.1239 and standard error of 0.0391 and T statistics of -

3.1703 and probability value of 0.0157 is negative but statistically significant with the quality of life in Nigeria in fact, an increase in the quality of environment will reduce the human development index. The economic implication is that once the government improves on the quality of environment, people tend to a better quality of life. Similarly, capital expenditure is seen to have a positive relationship with the quality of life, with coefficient of 0.07624, standard error of 0.01814, T-statistics of 4.2020 and a corresponding probability value of 0.0040. The economic implication of this is that, a rise capital expenditure will lead to a corresponding increase in the quality of quality of the people, a one percent rise capital expenditure will further lead 0.7% rise in the quality of life of the people in Nigeria. The one lag of expenditure on education and health expenditure are positively signed and exhibit a positive relationship with the quality of life in Nigeria. While the former has a coefficient of 0.1295, standard error of 0.0199, T- statistics of 4.4842 and a corresponding value of 0.003 the later has a coefficient of 0.000124, standard error of 4.1105 an T- statistics of 3.0119 and a corresponding probability value of 0.0196 are all significant at both 5% and 10% level respectively. This also implies that a raise in government and health expenditure will raise the quality of life in Nigeria.

Table 4.4: Short Run Estimates

Variable	Coefficient	Standard error	T- statistics	p-value
ECT(-1)	-1.6389	0.1029	-15.9268	0.0000***
HDI(-1)	0.2908	0.0642	2.8201	0.02558**
LOGCAEXP(-1)	0.0762	0.0078	9.7513	0.0000***
LOGEDUEXP	0.0194	0.0049	3.9477	0.0055*
LOGGDPPC(-1)	0.4417	0.0899	4.9137	0.0017**
HEXP	0.0012	2.5005	4.9618	0.0016**
CO2EMP	-0.1239	0.0011	-11.7965	0.0000***
CORRP	0.0580	0.0084	6.9302	0.0002*
DUMMY-HDI	0.0157	0.0043	3.6807	0.0079**

$R^2 = 0.98$, adjusted $R^2 = 0.95$ Dubin Watson= 2.288

Source: Authors computation using E-Views 10

In the short run estimates, as detailed in Table 4.4 above, the result is more revealing, the ECM adjustment equation is valid, it exhibits negatives and statistical significance with -1.6389, corresponding standard error of 0.1029, T- statistics of -15.9268 and 0.0000 p-values. Which is less than 1% indicating convergence of the speed of adjustment of the short run deviation to long run equilibrium with other variables. This implies that about 100% of the variation will be corrected annually to revert the quality of life in to equilibrium with other variables. It is also instructive to note that highly statistical ECM coefficient is a further proof of the existence of cointergration between government expenditure and the quality of life. Also, all the variables are statistically significant and well signed. Except for the quality of environment which is negatively related to the quality of life in Nigeria. What the result indicates is that quality of environment is positively responsive to the changes in government expenditure in addition to the corruption. One interesting thing about the result is that, both in the long run and short run, government expenditure is a significant factor influencing the quality of life in Nigeria over the period of investigation. The goodness of fit for the short run ARDL model approximately 93% and the adjusted R2 is 95%, which shows that the independent variables employed in the model jointly account for 95% of the total variation in the quality of life.

4.6 Results of Toda-Yamamoto VAR Granger Causality Test

In line with all the selection criteria, the initial lag length for the estimation is 2 while the lag length used for TY is 3). Similarly, the stability test result involving (the inverse root of AR characteristics polynomial and inverse root of AR implying that none of the root lies outside the unit circle) is well satisfied as none. Consequently, the result of the hetersokedascity with 400.3310 and a corresponding probability value of 0.3748 is satisfied, similarly, the result of the autocorrelation test with 52.79183 and corresponding value of 0.4029 is also satisfied.

Table 4.5a: (from Other Variables to HDI)

Variables	Chi-square	Prob. Values
CEXP	0.608025	0.7379
EDUEXP	19.32065	0.0001
GDPPC	3.439094	0.1791
CO2EEMP	1.546460	0.4615
HEXP	2.307410	0.3155
CORRP	0.11927	0.9421
ALL	148.1779	0.0000

Source: Authors computation using EViews 10

From the result above, it is evidently clear that the null hypothesis of no collective granger causality among government expenditure and the quality of life in Nigeria cannot be rejected at the 10 percent level. The probability value of the Chi-square is 0.0000. However, it is evident that only education expenditure (proxied as EDUEXP) is only variable that influences the quality of life in Nigeria at the 10 percent level of significance. This is so as the null hypothesis of no granger causality between education on expenditure and quality of life (proxied as HDI) in Nigeria is rejected at barely the 10 percent level with probability of Chi-square as exactly 0.0001.

Table 4.5b: Toda-Yamamoto Granger Causality Test (HDI to Other Variables)

Variables	Chi-square	Prob. Values
CEXP	3.463555	0.1770
EDUEXP	30.35868	0.0000
GDPPC	4.765156	0.0923
CO2EEMP	0.079652	0.9610
HEXP	2.137639	0.3434
CORRP	0.595515	0.7425

Source: Authors computation using E-Views 10

In addition to the result in table, the causal links moving from human development index to each of the explanatory variables respectively, the results show that the null hypotheses that no granger causalities from human development index to these variables cannot be rejected at the 10 percent level of significance except the causal link to expenditure on education. These are instructive enough that the direction of causality only moves from expenditure on education to the human development index while the reverse causality only holds from human development index to expenditure on education in Nigeria.

Table 4.6: Diagnostic Test

Variables	T- values	p-values
Breusch-Godfrey Test (ch2,1)	0.300693	0.6032
Breusch-Godfey Test(ch^2,2)	1.555590	0.2983
Heteroskedasticity test (ch^2,1)	0.510760	0.4814
Heteroskedasticity test (ch^2,2)	0.385277	0.6846
RAMSEY RESET	0.551322	0.6076
Jaque-Bera	0.591377	0.7440
Standard error of regression	0.0004551	

Source: Authors computation using E-Views 10

The result of the diagnostic statistics is satisfactory. The adjusted R^2 is 0.98%, suggesting that 98%of the variation in quality of life is explained by the lagged values of human development index, government expenditure (proxied as health expenditure, education expenditure, quality of environment, gross domestic product per capital, capital expenditure) and corruption (CORRP). Consequently, the adjusted coefficient of determination shows that the estimated model has a huge predictive ability. In that the p- value of 0.000001 of the F- statistics is highly significant, also the JB statistics and probability value are 0.591377 and 0.744019 this is reasonably high showing that that the model does not suffer from the normality assumption. The Beusch-Godfrey (BG) serial correlation LM test statistics indicating the null hypothesis of no serial autocorrelation is not rejected. The regression specification error test as captured by the RESET is quite satisfactory as the F-statistics is not statistically significant, indicating correct specification of the estimated model. Therefore, the null hypothesis is hereby rejected and accept the alternative which states that, the null hypothesis is rejected. This further suggests the robustness of the model. The result of the CUSUM test line lies within the band of 95% confidence interval that is at 5% level of significance. The result therefore confirmed the accuracy of the short run parameter of the model. the lower figure is the CUM of the squares representation for the long run stability test confirmation of the residuals. The result further reflects the stability condition on the long run.

5. CONCLUSIONS AND POLCY RECOMMEMDATIONS

The paper examined whether institutional environment matters in examining the impact of governn expenditure on the quality of life in Nigeria. The period of analysis covers from 1980- 2022, the met of analysis is the ARDL bound test incorporating structural breaks modelling. The result sh government capital expenditure at lag one (CEXP), government health expenditure (HEXP) at lag government education expenditure at current levels all shows positive and significant impact on quality of life except for the quality environment which reveals a negative but significant impact on quality of life in Nigeria. While, gross domestic product per capital (GDPPC), corruption (COR both shows positive but statistically insignificant impact on the quality of life in Nigeria. Only qua of environment (CO2EMP) shows a negative but significant impact on the quality of life. In the sl run, the same pattern is exhibited i.e. all the variables show positive and statistically significant im on the quality of life except for the quality of environment which shows a negative but statistic significant impact on the quality of life in Nigeria. This therefore implied that, government expendi is significant factor explaining the quality of life in Nigeria. The causality result, shows that the hypothesis of no collective granger causality among government expenditure and the quality of lif Nigeria cannot be rejected at the 10 percent level. The probability value of the Chi-square is 0.0(However, education expenditure (proxied as EDUEXP) is only variable that influences the quality life in Nigeria at the 10 percent level of significance. The empirical finding necessitates actiona recommendations. In the first place, government in Nigeria should try to meet up with the Un Nations required budget allocation on the education sector in order to increase more investment education and also improve on the funding of existing educational institutions and this will bring more quality graduates, this to a large extend will improve the quality of life of the people in ret

Government in Nigeria should also increase the budget allocation on the health sector by increas investments on health and also improve the existing health facilities with better equipment, impr the welfare package of health workers and the quality of their training because people with so health, will consequently improve the quality of life of the people in Nigeria.

REFERENCES

Akanbi, O., A. (2014). Government expenditures in Nigeria: Determinants and trends. *Mediterranean jou of social sciences.* Mediterranean center of social and educational research publishing, Rome-I Doi;10.5901/mjss.2014.v5n27p98.

Anjade, G., Ahemen, M. and Ijirshar, V.U. (2020). Asymmetric impact of Government Spending Behaviou National Income and Unemployment in Africa. Journal of Economics and Allied Research, 4(1), 32

Balcerzak, A., & pietrzak, T. (2015). Research and development expenditures and quality of life in Euro Union countries. *Institute of Economic Research Working Papers*.

Bhatia, K., & Dash, M. K. (2013). A demand of value based higher education system in India: A comparat study. *Journal of Public Administration and Policy Research, 3(5), 156.*

Bjornskov, C., Dreher, A., & Fischer, J. A. (2007). The bigger the better? Evidence of the effect of government size on life satisfaction around the world. *Public Choice, 130*(3-4), 267-292.

Central Bank of Nigeria (2022). *Statistical bulletin central bank of Nigeria*. Central Bank of Nigeria, Abuja

Central Bank of Nigeria (2022). Statistical Bulletin. Central bank of Nigeria (CBN), Abuja, Nigeria.

Effiong, U. E. & Bassey, G. E. (2020). Public health expenditure and the quality of life in Nigeria: empirical investigation. *International Journal of Research and Sustainable Development*, 7(1), 1-

Filmer, D. & Pritchett, L. (1997). Child Mortality and Public Spending on Health: How Much Does Money Matter?‖, World Bank Policy Research Working Paper No. 1864 (Washington:World Bank).

Gupta, S., Davoodi, H., & Tiongson, E. (2000). Corruption and the Provision of Health Care and Educa Services. IMF Working Paper. Washington D.C.: International Monetary Fund

Gukat, T. G., & Ogboru, I. (2019). An empirical analysis of government expenditure and economic growt Nigeria. *Journal of economic developmental studies,* 5(4),122- 134.

Gangal, V. K. & Agarwal, K. (2017). *Well-being and public expenditures: A study of Indian econ* Dayalbagh Educational Institute, Dayalbagh, AGRA-282005.

Hamoudi, I., & Bendhina, M. (2019). Government housing policies and their impact on quality of life standard study. *International Journal of Inspiration and Resilience Economy*, 3(1), 8-16.

Ikubor, O. J., Oluwaseun, O. A., Saheed, Z. S. and Abraham, A. A. (2022). Government capital expenditu the economic services sector and economic growth in Nigeria. Journal of Economics Allied Research,7(2),296-308.

Karuna, G., Sourafel, G., Oliver, M. & Verschoor, A. (2013). Aid, public spending and human welfare: Evid from quantile regressions. *Elsevier journals,* 33(3), 355–370.

Kasmaoui, K. & Bourhaba, O. (2022). Happiness and public expenditure: Evidence from a panel analysis, 2017. Accessed on 24th, June, 2020, from https://mpra.ub.uni-muenchen.de/79339/MI Paper No. 79339

Keynes, J.,M. (1936), The General Theory of Employment, Interest, and Money. *Open Access Library Journal, 4(8), August 11, 2017*

Lehman, A. (2002). Quality of life interview for the chronically mentally, evaluation and program plann *International journal of social psychiatry,* 11(4),79-91.

López-Casasnovas, G., Rivera, B., & Currais, L. (2005). Health and economic growth: Findings and po implications. Cambridge: MIT Press.

McCall, S. (1975). Quality of life. *Social Indicator Research*, 2(1), 229-249.

Mpofu R. T. (2016). Standard of living, quality of life and per capita GDP: A South African experie *Department of finance, risk management and banking, university of South Afi* Dol:10.22495/cocv1111c10p6.

National Planning Commission (2005). *National empowerment and development strategy (ne (abridged)*. Abuja: National Planning Commission, reproduced by Central Bank of Nigeria.

National Bureau of Statistics (2020). Statistical news*: Labor force statistics*, No. 476. Abuja: The NBS

Ogba, L. (1999). *Element of public finance, (*2nd Ed). Heritage publication.

Ogbuagu, A. R., & Ewubare, D. B. (2019). The dynamic correlation between fiscal spending education, health, consumption and standard of living in Nigeria. *International Journal of Economics and Financial Issues, 9(3), 259-267*

Okonkwo, O.N., Ojima, D., Ogwuru, H.O.R., Echeta, D.O., Ejike, D.E., Akamike, O.J. and Manasseh, C (2023). Impact of Government Capital Expenditure on the Economic Growth Rate of Nigeria. Journa Economics and Allied Research, 8(1),335-348

Perovic, L. M., & Golem, S. (2010). Investigating macroeconomic determinants of happiness in transitior countries: How important is government expenditure? *Eastern European Economics, 48*(4), 59-7

Pesaran, M., & Shin, Y. (1998). An autoregressive distributed lag modelling approach to cointegration analysis. In S. Strom, *Econometrics and Economic Theory in 20th Century* (p. Chapter Cambridge: Cambridge University Press.

Pesaran, H. M., Shin, Y., & Smith, J. R. (2001). Bounds testing approaches to the analysis of l relationships. *Journal of Applied Econometrics,* 16(3), 289-326.

Rajkumar, A.S., & Swaroop, V. (2002). Public Spending and Outcomes: Does Governance Matter? Pc Research Working Paper Series 2840. Washington D.C.: World Bank.

Ruzima, M. & Veerachamy, P. (2021). The impact of public spending in education and health on human development in India. Journal of the Asia Pacific Economy, 26(3), 9-21

Scully R. (2001). Government expenditure and quality of life. *Public Choice*, 108(2), 123-145

Sen, A. (1985). *Commodities and Capabilities*. Amsterdam New York New York, N.Y., U.S.A: North-Holland Sole distributors for the U.S.A. and Canada, Elsevier Science.

Sango-Coker, E. Y. & Bein, M. A. (2018). The Impact of Healthcare spending on Life Expecta Evidence from Selected West African Countries. *African Journal of Reproductive Health* 22 64-71.

Sebil , O. O. (2023). Fiscal policy and sectoral output growth in Nigeria: new empirical evidence. *journa economics and allied research*, *8*(3), 18–34. retrieved f https://jearecons.com/index.php/jearecons/article/view/321

Taiwo, M., & Abayomi, T. (2011). Government expenditure and economic development: Empirical evid from Nigeria. *European journal of business and management, 3(9), 18-28.*

Temidayo, O. A., Oderinu, K. H. and Abiodun, S. O. (2022). Public expenditure and infrastructural developr in Nigeria: a comparative analysis of democratic and military regimes. Journal of Economics Allied Research, 7(2), 16–32.

Tella, R. D. & Macculloch, R. (2005). Some Uses of Happiness Data in Economics. *Journal of Economi Perspectives, 20(1), 25-46.*

Toda, H.Y., & Yamamoto, T. (1995). Statistical inferences in vector autoregressive with possibly integr processes. *Journal of Econometrics 66,* 225-250.

Ubong, u., & Utoro ,U.,I. (2020), Government expenditure and poverty alleviation in Nigeria: An empirical investigation, North Asian International Research Journal of Social Science 4(3), 240- 2

Udofia, L. & Essang, N. (2015). Agricultural expenditure and poverty alleviation in Nigeria. *European Jou of Business and Management*, 7(21),29-44.

UNESCO (1990), What happened to literacy? Historical and conceptual perspectives on literacy in UNESCO , International Journal of Educational Development 31(3) ,329-323

World Health Organization, (1995). *World health organization quality assessment*. Position paper from world health organization social science medicine, World Health Organization, Geneva.

World Health Organization, (2015). *World health organization quality assessment*. Position paper from world health organization social science medicine, World Health Organization, Geneva.

World Bank (2021). World Development Indicators. Washington DC: World Bank

APPENDIX 1

Descriptive Statistics

VARIABLE	CEXP	CO2EMP	HDI	HEXP	CORRP	EDUEXP	GDPPC
Mean	646.275	0.667131	0.461226	104.4381	0.380968	1.7916255	5.441610
Median	5519.470	0.654964	0.46000	55.66290	0.420000	1.918030	5..44598
Maximum	2289.000	0.862605	0.539000	388.3700	0.540000	2.773377	5.585854
Minimum	24.05000	0.481063	0.241000	0.150200	0..21000	-0.537602	5.306862
Std. Dev.	548.5422	0.080417	0.071497	117.4687	0.097172	0.844014	0.105129
Skewness	1.099330	0.435666	-1.78539	0.988874	-0.00234	-0.968818	0.006315
Kurtosis	3.978193	3.286924	6.460435	2.798461	1.564210	3.308204	1.324147
Jargue-Ber	7.479995	1.086994	31.93659	5.104800	2.662791	4.972172	3.550321
Probability	0.023754	0.580714	0.000000	0.077894	0.264108	0.083235	0.169456

Source: Authors Computation

APPENDIX 2: Test of Cointegration Result

Critical values	I(0)	I(1)
1%	3.06	4.15
2.5%	2.70	3.73
5%	2.39	3.58
10%	2.08	3.00

F- Statistics = 19.51199

Source: Authors computation using EViews 10