

# **Impact of Good Governance on Health Outcome, Among Selected African Countries**

## **Abstract**

Good governance is an essential component that drives better health outcome and education output required as a catalyst that will stimulate economic growth, and this constitutes a vital social objective as a result of good level of human capital development. The study evaluated the impact of good governance on health outcome among selected African countries using panel data from 2000 to 2020. The Panel unit root tests indicated that real gross domestic product, health outcome, are indicators of good governance are stationary at level while health expenditure and foreign aid are stationary at first difference. The Generalized Method of Moment (GMM) results show that indicators of good governance have positive and statistically significant effects on health outcome in the selected African Countries. Real gross domestic product has positive and statistically significant effects on health outcome in the selected African Countries Life expectancy has positive and statistically significant effects on health outcome in the selected African Countries. Health expenditure has positive and statistically significant effects on health outcome in the selected countries. Foreign aid indicates positive and statistically significant effects on health outcome in the selected African Countries. The study recommends that African Countries should ensure that indicators of good governance such as political stability, accountability and voice, and control of corruption are moving smoothly without any interruption, by so doing economic growth of African countries will increase.

## **Introduction**

Good governance is an essential component that drives better health outcome and education output required as a catalyst that will stimulate economic growth, and this constitutes a vital social objective as a result of good level of human capital development due to increase in workers' skills, productivity, and quality of life that is required to bring about desired change (Hamid, 2017). Furthermore, efficient governance opens the door to high productivity and human capital accumulation, both of which are key determinants of economic growth. As a result, the relationship between good governance, economic progress, and human capital accumulation via education output and health outcome may be established (Amadi, 2019). Similarly, the topic under consideration has been a source of contention for many decades. The notion of 'governance' was first proposed and actively debated in the disciplines of public administration, political science, and economics in the 1980s (Grindle, 2010).

Samarasinghe (2018) demonstrated the peculiar importance of government policies and social infrastructure as a cornerstone for economic growth. The basic concept of good governance and its importance to economic growth came to its central stage in the early 1990s. The term governance has been viewed as a broader perspective by different scholars. Grindle, (2010), conceptualized the term governance based on understanding of scholars on the political right and left. For political right, it is perceived as the rule of law and institutional conditions for invisible hand to flourish and political left refers to as equity, protection for vulnerable people, including children, women and the state's rules that guides its operations. Similarly, Kaufmann et al, (2010) define governance as a basic set of traditions and institutions that can be used to exercise the power of authority to bring transformation in a social system. According to Kaufmann, et al (2010), x-ray six basic fundamental dimensions of governance which includes corruption control, government effectiveness, political stability, absence of violence or terrorism, regulatory quality, rule of law and voice accountability.

It is clear that there have been no comprehensive studies on the influence of good governance on health outcomes, education output, and economic progress in Africa and other nations throughout the globe. It will be a valuable addition to the body of knowledge if this study looks at how democracy in the domain of good governance correlates with health outcomes, education outcomes, and economic progress in chosen African nations. According to World Governance Indicators Index (WGI, 2021), chosen African nations will be examined for good governance indicators such as government effectiveness, political stability and rule of law as well as voice and accountability and control of corruption. For example, in Sub-Saharan Africa, Mădălina (2015) used just the corruption perception index as an indication of governance; in Europe and Malawi, Doucouliagos, Hennessy & Mallick, (2019) utilized only the corruption perception index as an indicator of governance.

The main objective of this paper is to analyse the impact of good governance on health outcome among selected African countries. The rest of the paper is organised as follows: literature review which is the second part of the paper, methodology in which the objectives of the paper could be achieved and is the third part of the paper, part four of the paper is presentation and analysis of the empirical findings and the final section concludes the paper.

### **Concept of Governance**

The term "governance" has been defined several times by various academics. Despite the many meanings, it appears that the term "governance" refers to the political sphere and political action as the essential role of every national government, regardless of which definition one uses. There is a difference between good governance and government, which we want to underline from the beginning. Because government and good governance aren't the same, despite their shared purposes. Good governance, on the other hand, refers to the conception, execution, and implementation of activities supported by shared aims of people and organizations, regardless of whether such organizations or individuals have official authority or policing capacity (Rosenau 1992 and Bingham et al. 2005).

Furthermore, when it comes to government, it's all about bureaucracy, law and financial regulation, as well as coercion. Non-regulatory policy instruments, on the other hand, are increasingly being used as a means of promoting good governance. Through the employment of this policy tool, non-state actors in collaboration with governments can be encouraged to propose, create, and implement cooperative projects (Jordan et al. 2003). Overall, excellent governance is becoming more commonplace in our society. A substantial and ever-expanding body of research exists on the topic of government (Aminuzzaman 2010). When used historically, such as in the fourteenth century, the term "good governance" denoted a technique, activity, or function of government (Halfani et al. 1994). A nation's system of politics, as well as its administration and regulation of state activities, constitutes good governance for Landell et al. (1991), according to this definition.

### **Empirical Literature**

The impact of good governance on health outcome has been reviewed and investigated extensively in the literature; In view of objectives one of the study, the panel data of Life expectancy (LE), is used as a proxy for health outcome (HOC), , index of good governance (IGG), Foreign aid (Faid),, Health expenditure (HExp), as a measures of national income per capital as it contribution to Gross national product and percentage of real gross domestic product is used as a proxy of realGDP as a measures of national income per capital in a year, ([Ceri Sedgley](#), (2013). It reveal that there is no general agreement reached in respect of the positive and negative good governance on health outcome and economic growth. From the survey of literature reviewed of Badamassi and Deyi Xu (2017), Juste and Martins (2019), Barnard et al

(2018), Serge and Julius (2017), John and Shirin (2015), Innocent and Bernadatte (2015), Sakiru et al (2020), Seidu and Hanane (2019), Samarasingle and Tharangy (2018), Benji and Anosike (2014), Adel .H (2019), Jennifer (2020), Shih-Ying Wu et al (2010), Engiell (2015), Amadi (2019), Mohammed (2011), Ronaldo et al (2016), Jean-Baptiste and Bertrand (2018), Loannis (2010), Tatoglun (2011), Ozgalik (2013), Peykaijou (2011), Emmanuel and Emmanuel (2014), Gisore (2014).

Consequently, the theoretical findings above show that good governance and health outcome have positive and significant impact on economic growth. Similarly, Hilaireth and Gilles (2015), Oni and Lawrence (2014), William T, (2019) and Modibo and Inuwa (2015), based on the hypothesis tested found a negative relationship between governance, education and economic growth while Fatima and Abdullahi (2014), Mohammed and Mohammed (2020) show a unidirectional relationship between education and economic growth. On the other hand, Korkmaz and Kulunk (2016), Yardimcioglu (2012), Kestkoglu and Ozturk (2013), have tested bidirectional relationships between health investment and economic growth among selected African countries. No overall studies conducted on the general impact of good governance, health outcome, education output and economic growth among selected African countries.

Other findings showed a wide range of econometric approaches, time periods, sampling nations, functional variables, and theoretical underpinnings, all of which contributed to an inconsistent empirical literature (William, 2019).

Furthermore, good governance, health outcomes and education performance have not been conclusively linked with economic growth by scholars in the past. Consequently, there is a basis for the discrepancies in research findings. For the most part, research has been limited to a single country and a limited number of time periods. In most nations, the only data available is yearly, with a maximum time span of 10 to 35 years. Traditional unit root tests, such as cointegration tests and enhanced dickey-fuller tests like the Johansen and Julius (1998) test, might be deceptive when annual time series data are scarce (Korkmaz and Kulunk, 2016).

The study is clearly aimed at improving and proposing more realistic solutions to problems not addressed in the field of the influence of good governance on health outcomes, educational output and economic growth, based on contradicting empirical data. According to the findings, it is advantageous to revive interest in the topic and to consider ways to improve the operational

factors, timeline, and technique used. The following are some of the research gaps that this project aims to fill: Many studies have looked at the impact of governance quality on health outcomes and economic growth using classic fixed and random effect models. These models assume that cross-unit heterogeneity is time invariant, which is a particularly strong assumption when dealing with panel data.

## Methodology

The model of the paper is specified as

$$HOC = F(IGG, RealGDP, LE, Hexp, FAID) \dots\dots\dots(3.1)$$

The following multivariate regression of the predictors of health outcomes was produced from this health production. Natural log of life expectancy at birth for the  $i$ th nation in year  $t$  is HOC in this context (LE). LE is the average life expectancy of a person at the time of his or her birth. The health of a population may be gauged by looking at its life expectancy. Real GDP (gross domestic product per person) is calculated using the purchasing power parity (PPP) method. LE may be negatively or positively affected by changes in real GDP, which measures the national average income and represents the level of economic growth and development in a country. Percentage of GDP devoted to health care in HE. Indicators of public investment in health care and human capital may be found in this number. LE is projected to benefit as a result of these spending. Five of the six good governance metrics from the Worldwide Governance Indicators are included in IGG. Political stability, Corruption control, Voice and accountability, governance effectiveness, and the absence of violence and terrorism have been omitted from the study since they were considered to be the least relevant to health outcomes. Using each of these indicators in turn, we estimate eq. (3.2) to get an idea of how well-run government is. Donor contributions to the public or private sector in dollars, which have a favorable influence on economic growth, are considered foreign aid.

The natural logarithm of health-related revenues and expenditures is used. This accomplishes a number of goals: the connection between these factors is not linear. Control of corruption is one aspect of good governance that is defined. Corruption, both little and large, and the "capture" of government by elites and corporate interests are all considered when assessing how much public authority is being used for private benefit. The efficiency of the government Quality of public services, the level of civil service independence, the quality of government policy development

and implementation, and the legitimacy of the government's commitment to such policies are all factors that influence public perceptions. Politics is stable. Governmental destabilization or overthrow perceived probability by unlawful or violent measures, including politically motivated violence and terrorism Quality control by the government A belief in the ability of the public sector and the government to enact effective rules and regulations that allow and support private sector development. Rule of law Agents' belief in and adherence to social norms, such as contract enforcement, property rights, law enforcement, and the courts, as well as the risk of crime and violence, are all factors that go into determining the rule of law. Participation and responsibility a country's residents' belief in the amount to which they may participate in voting their government, in exercising their freedom of speech and association, and in having access to free media.

$$HOC_{ij,t} = \lambda HOC_{ij,t-1} + \beta_0 + \beta_1 IGG_{jt} + \beta_2 RGDP_{ij,t} + \beta_3 LE_{ijt} + \beta_4 HExp_{ijt} + \beta_5 FAID_{ijt} + \phi_i + \alpha_t + \mu_{it} \dots \dots \dots (3.2)$$

where IGG is Index of good governance that influences the growth of the economy, taking into cognisance all its indicators, real gross domestic product per capita real GDP variables is used as a proxy of economic growth, health expenditure (Hexp), Life expectancy (LE) variables is used as a proxy of health outcome (HOC), All foreign assistance to either private or public is used as a proxy for foreign aids (FAID) variables (variable and  $\phi_i$  represents a vector of conditioning information that controls for other factors associated with economic growth and  $\alpha_t$  is an unobserved country-specific effect and  $\mu_{it}$  is the error term.

### Empirical Results and Discussion

**Table 1. Descriptive statistics**

Statistics	RGDP	HOC	IGG	HEXP	FAID
Mean	0.972364	60.19457	0.537901	5.731624	764.2447
Median	0.984077	59.58000	0.610000	5.290000	558.8300
Std. Dev.	0.748888	8.040202	0.566090	2.155551	7605624
Skewness	0.655883	0.180299	0.518138	1.869604	1.828824
Kurtosis	4.100514	2.475983	2.974604	9.937048	7.875153

Jarque-Bera	61.69120	8.513985	22.60951	1306.778	781.6038
Probability	0.247813	0.074165	0.931512	0.000000	0.000000
Observations	714	714	714	714	714

Source: Researcher computation using E-views 10.

Table 1 indicates the result of descriptive statistics of the study, it indicates that the standard deviations of the variables employed are far away from their means except health outcome (8.040202). The Skewness of the distribution in the table shows positive values and less than one of real gross domestic product, health outcome, indicators of good governance, and foreign direct investment, this implies that these variables are normally distributed. The Skewness also indicated values of higher than one of health expenditure and foreign aid, it means that, these variables are not normally distributed. The Kurtosis from table 1 shows that health outcome, and indicators of good governance are normally distributed because their Kurtosis values are less than or equal to 3 while real gross domestic product, health expenditure, and foreign aid are not normally distributed because their Kurtosis values are greater than 3. The Jarque-Bera test for normality shows that real gross domestic product, health outcome, indicators of good governance, and health expenditure are normally distributed because their p-values are greater than 5% while education output, health expenditure and foreign aid are not normally distributed because their p-values are less than 5%.

## Panel unit root test

### 4.3.1 Levin Lin and Chu and Im Pesaran and Shin unit root test

Table 2. Levin Lin and Chu and Im Pesaran and Shin unit root test

Variables	Test at level		Test at first difference	
	LLC P-value	IPS P-value	LLC P-value	IPS P-value
RGDP	0.0003*	0.0007	-	-
HOC	0.0000	0.0000	-	-
IGG	0.0000	0.0000	-	-
HEXP	0.0747	0.8570	0.0000	0.0000
FAID	0.0913	0.3099	0.0000	0.0000

Source: Researcher computation using E-views 10.

The table 2 present the panel unit root test of Levin Lin and Chu (LLC) and Im Pesaran and Shin (IPS) unit root test, the tests show that real gross domestic product, health outcome, and indicators of good governance are stationary at level or are integrated of order zero (I(0) process) while health expenditure and foreign aid are stationary at first difference or are integrated of order one (I(1) process).

### Panel Cointegration

**Table 3 Kao panel Cointegration Test**

ADF t-statistic	Probability
-2.764379	0.0029

Source: *Researcher computation using E-views 10.*

Table 3 presents the result of Kao residual panel cointegration test. The result confirmed the presence of cointegration amongst the variables employed as the ADF t-statistics probability value is significant at 1%. Therefore, we reject the null hypothesis and conclude that there is long run relationship amongst the variables employed, because the p-value is less than 5%.

### Generalized Method of Moment (GMM)

**Table 4. Generalized Method of Moment (GMM)**

Variables	Coefficient	Standard Error	T-statistics	P-Value
HOC(-1)	0.005320	0.001041	5.110822	0.0000
IGG	0.038393	0.009753	3.936460	0.0001
LRGDP	0.092170	0.017968	5.129607	0.0000
LE	0.005814	0.001249	4.654923	0.0000
HEXP	0.017690	0.003666	4.826140	0.0000
FAID	0.000101	2.358705	4.285255	0.0000

J-statistic				2.148312
Prob(J-statistic)				0.728916
Arellano-Bond Serial correlation test				
AR(1)				0.8250
AR(2)				0.9380

Source: *Researcher computation using E-views 10.*

Table 4 shows the Generalized Method of Moment (GMM) result of the estimated model in the study, the result indicates that the dependent variable (health outcome) at lag 1 has a positive and statistically significant, this implies that the dependent variable is largely depend on itself. Indicators of good governance show positive and statistically significant effects on health outcome in the selected African Countries, this implies that an increase in indicators of good governance by a single digit will result an increase in health outcome in the selected African Countries. Furthermore, real gross domestic product indicates positive and statistically significant effects on health outcome in the selected African Countries, this means that an increase in real gross domestic product by N1 will cause 9% an increase in health outcome in the selected African Countries, This conforms to the economic apriori expectation when there is increase in economic activities there will be an increase in the health management of an individual. Life expectancy indicates positive and statistically significant effects on health outcome in the selected African Countries, by implication an increase in life expectancy by a single digit will result an increase in health outcome in the selected African Countries. This conforms to the economic apriori expectation which assumed the existence of positive relationship between life expectancy and health outcome. Furthermore, health expenditure indicates positive and statistically significant effects on health outcome in the selected countries, this means that an increase in health expenditure by N1 will cause 1% an increase in health outcome in the selected African Countries, This conforms to the economic apriori expectation when government increases its expenditure on health there will be an increase in health outcome in the selected African Countries. Foreign aid indicates positive and statistically significant effects on health outcome in the selected African Countries, by implication an increase in foreign aid will result an increase in health outcome in the selected African Countries, this conforms to the economic apriori expectation which assumed the existence of positive relationship between foreign aid and health outcome.

Furthermore, the J-statistic from table 4 which test the over identification restriction in the model is close to zero and its corresponding p-value is far from zero, this means that the conditions of good fitness of the model are satisfied and we can conclude that the model is robust. The Arrelano and Bond serial correlation test shows that both AR (1) and AR (2) p-values' are greater 5%, this means that we cannot reject the null hypothesis and conclude that model has no serial correlation problem. In other word the model is free from serial correlation problem.

### **Conclusions and Recommendations**

The study examine the Impact of Good Governance on health Outcome among selected African Countries from 2000 to 2020, variables employed in the analysis include; real gross domestic product, health outcome, indicators of good governance, life expectancy, health expenditure and foreign aid. The study employed panel unit root test such as Im Pesaran and Shin, Levin Lin and Chu. The Panel unit root tests indicated that real gross domestic product, indicators of good governance, and foreign direct investment are stationary at level while health expenditure and foreign aid are stationary at first difference. The panel Cointegration test has confirmed the presence of cointegration amongst the variables employed. The Generalized Method of Moment (GMM) results show that indicators of good governance have positive and statistically significant effects on health outcome in the selected African Countries. Real gross domestic product has positive and statistically significant effects on health outcome in the selected African Countries Life expectancy has positive and statistically significant effects on health outcome in the selected African Countries. Health expenditure has positive and statistically significant effects on health outcome in the selected countries. Foreign aid indicates positive and statistically significant effects on health outcome in the selected African Countries. The J-statistic is close to zero and its corresponding p-value is far from zero, this means that the conditions of good fitness of the model are satisfied and we can conclude that the model is robust. The Arrelano and Bond serial correlation test shows that both AR (1) and AR (2) p-values' are greater 5%, this means that we cannot reject the null hypothesis and conclude that model has no serial correlation problem. In other word the model is free from serial correlation problem. The paper recommends that African Countries should ensure that indicators of good governance such as political stability, accountability and voice, and control of corruption are moving smoothly without any interruption, by so doing economic growth of African countries will increases.

## References

- Amadi, K. C. & Ajolole I. A (2019). Human capital investment as a catalysts for sustainable economic development in Nigeria. *International Journal of Management Science and Business Administration*, Vol. 5 pages 13-22.
- Arellano, M., and Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *Review of Economic Studies*, 58(2), 277-297.
- Arellano, M., and Bover, O. (1995). Another Look at the Instrumental Variable association with Human Development: A Cross Country Analysis. IIMB
- Arellano, M., and O. Bover (1995), "Another Look at the Instrumental-Variable Estimation of Error Components Models," *Journal of Econometrics*, 68, 29-52.
- Arellano, M., and S. Bond (1991), "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," *Review of Economic Studies*, 58, 277-297.
- Badamasi and Deyi (2017). The impact of health expenditure on the economic growth in Sub-Sahara Africa. *Journal of Science Research Publishing*.
- [Ceri Sedgley](#), (2013), The responsibilities of being a physiotherapist, Unite Stated time Magazine.
- Engell P, (2015). The impact of good governance in the economic development of western Balkan countries: *European Journal of governance and economic*; Vol. 4 no.1
- Fatima and Boussalem (2004). The relationship between public spending on health and economic growth in Algeria, *Economics review*.
- Grindle, M.S. (2010). Good Governance: The Inflation of Idea. HKS Faculty Research Working Paper series, RWP10-023. John F. Kennedy School of Government, Harvard University. ACTA UNIVERSITATIS DANUBIUS Vol 15, no 3, 2019 230.
- Halfani M et al (1994) Towards and understanding of governance: the emergency of an idea and its implication for urban research in developing countries. The Center for Urban and Community Studies, University of Toronto, Toronto.
- Hamid, A. A. (2017). Corruption, political instability and development nexus in Africa: a call for sequential policies reforms. (Munich personal archive) MPRA paper no. 8527.
- Innocent Makuta and Bernadette O'Hare, (2015), Quality of governance, public spending on health and health status in Sub Saharan Africa: a panel data regression analysis. Published by BMC Public health.

- Jobin, D. and Lawal Z. (2017). Application of game theory and new institutional economics in establishing a national voluntary organisation for professional evaluation in Nigeria. *African evolution Journal*, vol.5, no1.
- John and Shirim (2015). The effectiveness of health expenditure on the proximate and ultimate goals of health care in SSA. *Journal of world development*, Vol. 10, pp-166-179.
- Jordan A et al (2003) Has governance eclipsed government? Pattern of environmental instrument selection and use in eight states and the EU, CSERGE working paper EDM 03-15, University of East Anglia, Norwich
- Jordan A et al (2003) Has governance eclipsed government? Pattern of environmental instrument selection and use in eight states and the EU, CSERGE working paper EDM 03-15, University of East Anglia, Norwich
- Kaufmann, D.A.K., Kraay, A. & Mastruzzi, M. (2006). Governance matters V: aggregate and individual governance indicators for 1996–2006, World Bank Policy Research Paper No. 4012, Washington, DC.
- Mădălina R, (2015). Political stability: A condition for sustainable growth in Romania, *Journal of Procedia Economics and Finance*, Vol. 15-17. Bucharest, Romania.
- Muhammad Afzal, Hafeez Ur Rehman, Muhammad Shahid Farooq, Kafeel Sarwar, (2011), Education and economic growth in Pakistan: A cointegration and causality analysis.
- Ronaldo, et al (2018). Analysis of the effects of saluted economics indicators on education and on the causality between education and economic growth of the Philippines. *Journal of science and technology development*, Vol. 18.
- Samarasinghe, T. (2018). Impact of governance on economic growth. [Http://www.researchgate.net/publication/329630083](http://www.researchgate.net/publication/329630083).
- World Bank (2021). World development indicators. Available at: <http://data.worldbank.org/indicator>, accessed 28 October, 2021.
- Ying W. et al (2010). The impact of government expenditure on economic growth: how sensitive to the level of development. *Journal of policy modelling* page 801-817.