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Good Governance and Human Welfare Development in Malawi

LLOYD GEORGE BANDA[1]
[1] Stellenbosch University, Dep. of Political Science, (South Africa)
[1]Ministry of Finance and Economic Affairs, Dep. of Eco Planning & Dev, (Malawi)
E-mail: lloydgeorge585@gmail.com

Abstract

The United Nations, regional economic communities (RECs), donors, theorists, and researchers have prescribed good governance to remedy the African underdevelopment pathogen. In contrast to existing literature that measures the impact of good governance on economic growth using the gross domestic product-related indicators, this paper examines the effect of governance on human development in Malawi. Using the Autoregressive Distributed Lag (ARDL) model and data from 1990 to 2020, empirical results revealed a significant positive long-run relationship between good governance and human development. However, the results found that good governance worsens human well-being in the short run. Consequently, this study suggests that the implementation and strengthening of governance institutions should take a holistic pace. For example, there is a need for massive supply-side initiatives to circumvent governance's negative influence on human development arising from good governance-neopatrimonialism crashes in the short-run like potential inflation and exchange rate fluctuation.

Keywords: Capabilities Approach, Human Welfare, Neopatrimonialism, Malawi

1.0. Introduction

The significance of good governance to development has been highly assessed from the economic performance refracted acute angle of view using the gross domestic product (GDP) or GDP per capita or GDP per capita growth. GDP and its related measures are very crude measures of development because they can hardly explain significant aspects of human well-being. For example, health and education as included in the human development index (HDR 2020). The quest for governance – prescribed as a potential remedy for the underdevelopment of Africa, is at the heart of regional and national plans. Research on the effects of good governance and development remains an ongoing business. Good governance can restore all countries and make citizens of many developing nations find more relief from socio-economic

burdens. This hypothesis only holds if governance is transparent, fair, judicious, participatory, accountable, well-managed, responsive, and leads to efficient institutions. Grindle (2010) argued that good governance is the only source of hope for the plagued population throughout the world whose living conditions are characterised by absolute poverty, public insecurity, abuse of law and political instability, public service inefficiency, corruption, and inequality.

Since 2015, the world has taken a serious step toward development, especially with the initiation of Sustainable Development Goals (SDGs) (United Nations, 2015). The doctrine contains 17 broad and independent global goals. However, there is a strong consensus among the United Nations (U.N.) executive, its agencies, and member countries that achieving all other goals is constrained by international goal 16, which is about strengthening governance foundations. That means global goal 16 has the multiplier effects to achieve all human welfare-oriented goals such as (1) mitigating poverty, (2) absence of hunger, (3) good health and well-being, (4) better education standards, (5) gender balance, (6) clean water and sanitation, (10) reduced inequalities and, (13) life on land. These human welfare-oriented goals are critical to economic development beyond the economic growth prescribed in SDG eight. According to the California Association of Local Economic Development (CALED) (2021), economic development is the propensity of a nation to create wealth from which societal benefits are realised, where societal benefits refer to an improvement in human development.

SDGs are the brainchild of the 1995 Copenhagen Declaration on Social Development, the 1996 International Development Goals, and the 2000 Millenium Development Goals. These SDGs are not new but intensifying the transhistorical western campaign for good governance, especially in their use as a precondition for loans and aid (Carlos, 2001; Bräutigam & Stephen, 2004; Kwakye, 2010). For instance, Baroness Chalker, the oversees Development Minister, was reported reaffirming the policy in blunt terms as:

> *"Where a government wants aid to help with a transformation to democracy, to strengthen its institutions, to weed out corruption and incompetence, we will give it. Nevertheless, where a government turns its back on democracy, ignores accountability, disregards human rights, and allows corruption to flourish, our aid will be humanitarian to help the people in real need…" (Quoted from McAuslan, 1996).*

While Africa harbours most of the least developing countries globally, the adoption of governance is at the epitome of the African regional blocks and individual countries' vision and goals. The belief that the main obstacle to economic and human development in Africa is poor governance was further intensified in 1988 when a report from the World Bank stated that catastrophic governance is the only pathogen to Africa's underdevelopment (Mkandawire, 2007).

The publication of the African Agenda 2063 in 2015 provided a shred of solid evidence that good governance is a new truth hammering and thrashing the benighted minds of African policymakers. Descending from the United Nations, the African Union (A.U.) has gaudily savoured good governance in its African Agenda 2063. For instance, aspiration 3, goal 11 of the Africa Agenda 2063, envisages a complete transformation in governance status and democracy among all African countries by 2063 (African Agenda 2063, 2015). Consequently, Africa's regional economic communities (RECs) have equally adopted the agenda, such as the Southern African Development Community (SADC) and the Economic Community of Central African States (ECCAS) (UNHR, 1998). Similarly, SADC and ECOWAS recognise good governance as an essential enabler for regional economic integration. These organisations support member countries in various elements of good governance, such as political pluralism, peace, and elections (ECOWAS, 2001; GIZ, 2018).

As a U.N., A.U., and SADC member, Malawi has inevitably resisted good governance initiatives as a potential remedy to its underdevelopment hitches. The time trend analysis shows that Malawi's human development has fallen within the category of low human developed countries throughout the period covered in this study (See Appendix A2). According to UNDP (2020), Malawi is ranked 174 out of 189 countries and territories assessed by the United Nations Development Programme (UNDP). Nevertheless, Malawi is striving to achieve the sound well-being of all its residents. For example, the three pillars of the Malawi Vision 2063: agricultural productivity and commercialisation; industrialisation; and urbanisation, and all its enablers aim to drive the economy to economic independence, inclusive wealth creation, self-reliance, and high quality of life for all its citizens.

Due to the multifaceted effects of enabler 2, Malawi considers effective, active, and competent governance systems and institutional foundations to be a driving force to its 2063 goals (National Planning Commission, 2015). Indeed, good governance will propel adherence to the rule of law, whose observance and enforcement help empower and make citizens cultivate belief and trust in their leaders. The rule of law in particular, is important if impunity is to be denounced and eradicated. Besides, the rule of law can mitigate political instabilities, strengthen honesty, promote transparency, reduce corruption and ensure an equitable allocation of public goods and services. All these encompass fundamental conditions if Malawi can realise the desired human welfare development due to Vision 2063.

Nevertheless, there are still negligible guiding ideas and research studies that link good governance to human development, even though governance has captivated the minds of international and regional agencies, state leaders, researchers, and policymakers for an inestimable period. Most of the econometric research on governance has been fervently obsessed with assessing the impact of governance on economic growth (Dollar & Kraay, 2002; Fayisa & Nsiah, 2013; Murtaza & Farid,

2016). According to the Human Development Report (2020), economic performance measured by national output is a crude measure of human welfare and can hardly be relied on. In essence, the existing literature is rich in assessing the impact of governance on economic development and not on human development and other forms of development.

Furthermore, most of the available studies on this subject in Africa and globally are panel data analyses whose single eye and attention spreads wide and seldom to critic individual country specifications. It is of little surprise that the results are highly mixed. For example, Adzima and Baita (2019) noted that good governance positively influences economic growth in sub-Sahran Africa. However, Ekpo (2020) noted that governance negatively impacts economic growth in the same study area. Circumscribed in Sub-Saharan Africa, Malawi also suffers from the same mixed research findings. This study focuses on Malawi's sound governance system and institutions and how it affects the well-being of its residents.

In Malawi, there are no studies conducted to investigate the relationship between governance and human development. A study by Chinsinga et al. (2010) was a follow up of the 2006 corruption baseline survey. One of the study's conclusions was that corruption is the main obstacle and the overarching enemy to development in Malawi. Other documents on governance are projects and conference papers. For example, Msukwa (2021) examined the impact of strengthening land governance systems for smallholder farmers in the Malawi OXFAM project.

On the other hand, Malawian law researchers have studied the rule of law, a component of governance, as a standalone topic without linking it to human development. For example, Gloppen and Kanyongolo (2007) looked at the poor people's access to courts and justice. Nkhata (2017) only focused on the legitimacy of public universities on issues of academic freedom. While Kamchedzera and Banda (2002) only looked at the legislative duties on development during the first five years of multiparty politics. Overall, there is no forecasting knowledge of the impact of governance on human development in Malawi. Since 1994, Malawi has been classified as a low human developed country (UNDP 2020). With fluctuations and deterioration in governance and human development (see Appendix A3), it leaves a lot to be desired in the governance and human development field.

This study is organised such that section 2.0 outlines the review of literature, theory, and empirical underpinnings, which establishes the interaction between good governance and development. Section 3.0 outlines data and model estimation methods. Section 4.0 outlines statistical model results from summary and correlation analyses, diagnostic tests, bounds cointegration test, ARDL results, and the block exogeneity Wald test. Lastly, section 5.0 provides the conclusions of the study.

2.0. Theoretical and Empirical Review

2.1. Capabilities Approach

The study adopts the Amartya Sen Capabilities approach instead of governance-growth nexus studies, which employ the Solow growth model. According to Sen (1993) in Walker and Unterhalter (2007), development should be based on capabilities – the potential of an individual to do certain socio-economic activities and live their desired lifestyle. Therefore, we argue that people must be entitled to good health care, quality education, sanitation, social relations, and a safe living and work environment to achieve specific functions. These act as synergies for them to fetch their food and secure their home while observing societal norms.

According to Sen, differences in well-being among people and nations are not necessarily caused by disparities in income levels but by capabilities. These capabilities are classified into instrumental and substantial freedoms, and the former is critical in achieving the latter. Sen's instrumental freedoms reflect good governance elements: political freedom, economic facilities, social opportunities, transparency guarantees, and protective security. For example, political freedom concerns pluralism ranging from voting and uncensored press to contesting for office. Social opportunities include freedom to education, healthcare, gender equity, childcare, and social services. Transparency guarantees encompass assurances of legitimate business and government dealings. These arguments entail the absence of or minimal corruption, access to police, mechanisms of seeking justice, and the speed of court decisions (Walker & Unterhalter, 2007).

On the other hand, the success of economic freedoms depends on economic infrastructures critical to production and exchange systems in an economy, such as roads, railways, telecommunication systems, waterways, airways, financial institutions, electricity, water supply, freedom of women to seek work or business outside the home, and most importantly, access to global markets (Walker & Unterhalter, 2007; Abusharar, 2012; Reddy, 2018). Indeed, these freedoms focus on the empowerment and urgency required to attain substantial freedoms such as material wealth. From this perspective, this study deems governance as critical instrumental freedom for people in an economy to choose and attain something that helps them attain welfare.

Unlike GDP, the capabilities approach provides an essential tool for analysing well-being. Sen has shown that though India and China are equivalent in GNI. However, their survival capabilities, such as quality of education, life expectancy, mortality rate, and literacy rate, are significantly different (Sen, 1993; Gaertner, 2003). Regarding human development, survival is better in China than in India. This phenomenon is the case in many countries of the same economic status. Some countries have a better economic position in the gross domestic product (GDP) per capita but poor human

development. For example, in 2019, Malawi's GDP per capita was US$411.5. However, its HDI was higher than that of Mozambique, Rwanda, and Zimbabwe, whose GDP per capita was US$503.57, US$820.03, and US$1,463.99, respectively. Therefore, researchers and policymakers should not view development only in terms of economic performance but also its inclusiveness to the well-being of people. From this perspective, this paper employs the human development index as a dependent variable in its analysis. The indicator combines economic performance with characteristics of human welfare – income, health, and education.

2.2. Empirical review

In 2020, Ekpo conducted a panel study to investigate the impact of governance on development using data from all Sub-Saharan countries from 1996 to 2018. However, this study employed GDP per capita as a proxy for development. It is not unfathomable that the findings of this paper dwell much on trickle-down effects. Ekpo argued that as governance positively influences economic growth, the rest of the people will reap its benefits due to the increased likelihood of pro-poor policies. Similarly, Earl and Scott (2009) argued that good governance with strong democratic regimes could direct a country to achieve optimum economic performance and pro-poor policies.

The impact of democracy - an outcome of voice and accountability's indicator of good governance was loud in Malawi and Uganda. Multicandidate presidential elections in 1994 and 1996 prompted Bakili Muluzi and Museveni to spearhead the abolition of tuition fees in primary education (MacJessie-Mbewe, 2002; Stasavage, 2005). Good governance can only improve well-being where it yields pro-poor policies. However, Varshney (2000) argued that democracy does not improve well-being but rather economic strategies. He suggested that policymakers should at first determine economic policies for alleviating poverty with full attention before democracies decide whether to adopt them or not.

Chinsinga *et al*. (2010) dubbed corruption as cancer and an overarching enemy to Malawi's economic performance and general development, despite concerted efforts to alleviate the scourge by preceding administrations. Consequently, Chinsinga *et al.* (2010) conducted a study to determine monitoring patterns of governance trends and corruption emanating from the 2006 inaugural corruption baseline survey. The paper established various policy implications, such as cultivating vivid political will to fight corruption in public and private sectors. The article suggested that the quest to increase welfare and sustainable development requires solid efforts to promote socialisation and civic education programs to boost honesty, hard work, and awareness campaigns on how people can report and deal with corruption.

In a qualitative study, Dzivimbo (2019) reviewed the link between governance systems and sustainable development, emphasising Malawi and Zimbabwe. The comparative review study established that good governance is desirably noble in theory, and its tenets can be deduced only based on acceptance or rejection in polity practice. The study found that the political process in Malawi and Zimbabwe instigated cronyism which foils the opportunity to grab the desired economic growth and overall social development. Furthermore, Dzivimbo observed that political leaders are highly preoccupied with short-term goals due to re-election pressure at the expense of long-term sustainable development goals.

Related to the impact of governance and welfare, Zouhair (2019) investigated the possible effects of governance indicators to reduce poverty in the Sub-Saharan region. The paper applied the static panel model, which employed data from 44 Sub-Saharan countries between 1996 and 2016. The analysis used household consumption expenditure as a measure of human welfare. Empirical results revealed regional differences in the impact of governance on well-being. For example, political stability showed a negative and statistically significant in the Southern part of Africa (SSA and SADC), East African Countries (EAC), Economic Community of Central African States (ECCAS), and Southern African Customs Union (SACU). Political stability was positive in the West African Economic and Monetary Union (WAEMU), Economic Community of West African States (ECOWAS), and Central Europe & Middle East Africa (CEMA). On the other hand, the rule of law was found statistically significant and negative (ECCAS and IGAD) and positive in WAEM and SADC.

Pere (2015) investigated how good governance influences economic development in seven countries of the western Balkan regions. The paper sought to address whether economic development in the Balkans region depends on good governance. The study used the real GDP growth rate as a measure of economic development. Like other studies, the estimated coefficients confirmed that some indicators of good governance are significant, such as voice and accountability and control of corruption. In contrast, other pointers are insignificant in explaining economic development.

Similarly, Afolabi (2019) employed the GDP per capita growth rate to measure development in West Africa. The study incorporated all the good governance indicators instead of the composite governance index (CGI). He observed that four indicators, except for control of corruption and regulatory quality, positively influence development.

Indeed, a wide range of literature exists on the governance-development nexus globally. However, most of these studies have used the gross domestic product to measure development (Liu et al., 2018; Noha, 2016, Samarasighe, 2018; Ekpo, 2020; Fayisa and Nsiah, 2013, Ndulu and O'Connel, 1999; Murtaza and Farid, 2016). Implicitly, existing studies have emphasised economic growth so far. It, therefore,

opens up to explore the impact of governance on human development and other human welfare-related measures such as the human development index and economic freedom index.

3.0. Data and Model Estimation

3.1. Data

This study's analysis used Malawi's annual data from 1990 to 2020 to analyse the interaction among the variables. The composite governance index (CGI) is this study's primary explanatory variable of interest. This variable is computed from the six worldwide governance indicators (WGI), whose data was obtained from the Worldwide governance database (Appendix A1). The United Nations Development Programme (UNDP) index of human development is the dependent variable representing human welfare development due to its composition of education, health status, and economic status. While data for regression's additional terms, rate of change of Gross Domestic Product per capita and employment rate, is obtained from the World Bank and Fred Economic Databank, respectively. The rate of GDP per capita change is incorporated due to its trickle-down effects on human well-being. Scholars have argued that it is impossible to achieve improved living standards without economic growth (Ekpo 2020; Riggs 1970). On the other hand, an increase in employment levels improves incomes and the ability of people to afford essential goods and services.

3.2. Methodology

The study adopts the Autoregressive Distributed Lag (ARDL)/bounds testing cointegration procedure, also called Pool Mean Group (PMG), to estimate the long-run and short-run dynamic relationship among the variables of interest. Pesaran *et al*. (2001) proposed an ARDL model to investigate the existence of a cointegration relationship among variables. The research with 31 observations is econometrically healthy when run using the ARDL approach. This approach is valid for small sample sizes and yields valid t-statistics even in the presence of endogenous regressors with desirably unbiased long-run model estimates (Pesaran et al. 2001; Harris & Sollis 2003). For example, Banda (2021), Naseem (2021), Jeke & Wanju (2021), Chirwa (2003), Simwaka et al. (2012), and Udoh et al. (2015) respectively used 30, 17, 25, 24, 30, and 32 observations in their research incorporation of the time series ARDL technique. Most importantly, the ARDL testing approach helps circumvent the order of integration associated with the Johansen likelihood approach (Johansen and Juselius, 1990). The ARDL approach can be applied even if the variables are not integrated in the same order, purely I(1), I(0), or both.

The following ARDL model, specified as an Unrestricted Error Correction Model (UECM), was estimated to test the cointegration relationship between the variables: human development, governance, gross domestic product, and employment rate.

$$\Delta lnHDI_t = \alpha_0 + \sum_{i=1}^{p} \alpha_{1i} \Delta lnHDI_{t-i} + \sum_{i=1}^{q1} \alpha_{2i} \Delta lnCGI_{t-i} + \sum_{i=1}^{q2} \alpha_{3i} lnGDP_{t-i} + \sum_{i=1}^{q3} \alpha_{4i} \Delta lnEMP_{t-i} + \beta_1 HDI_{t-i} + \beta_2 CGI_{t-i} + \beta_3 GDP_{t-i} + \beta_4 EMP_{t-i} + V_{1t} \quad (1)$$

Where the mathematical triangle notation (Δ) is the first difference operator, V_{1t} denotes the white noise disturbance term. Upon the establishment of cointegration relationships, the above ARDL model of order (p, q1, q2, q3) can be presented using vector equilibrium or error correction model (VECM) as follows;

$$\Delta lnHDI_t = \alpha_0 + \sum_{i=1}^{p} \alpha_{1i} \Delta lnHDI_{t-i} + \sum_{i=1}^{q1} \alpha_{2i} \Delta lnCGI_{t-i} + \sum_{i=1}^{q2} \alpha_{3i} lnGDP_{t-i} + \sum_{i=1}^{q3} \alpha_{4i} \Delta lnEMP_{t-i} + \theta ECT_{t-1} + \varepsilon_t \quad (2)$$

Where **θ** represents the model's speed of adjustment parameter and the ECT denotes the error correction term whose coefficient has to be negative and statistically significant to confirm a cointegration relationship. In addition, the ARDL model uses a generalized likelihood estimation technique, such that the lag length is determined by information like the Schwarz Bayesian information criterion and the Akaike information criterion.

3.3. Data and Sources

The study employed 31 observations ranging from 1990 to 2020. The starting period was chosen because that marked the first publication of the human development index in Malawi. The ending period reflects the latest data available at the time of the study. CGI was chosen because it is the prime independent variable of interest. At the same time, GDP and EMP were selected based on their importance to human development. STATA-14 is used in estimating the regression model. The table below shows the variables that were used in the study.

Table 1: Variable names, codes, and data sources

Variable Name	**Code**	**Parameter**	**Source**
Good Governance	CGI	Composite Governance Index[1]	Worldwide Governance Indicators (WGI)
Human Welfare	HDI	Human Development Index	Human Development Reports (by UNDP)
Economic Status	GDP	Real GDP/capita growth rate at constant prices	World Bank
Employment	EMP	Employment rate	Fred Economic Data

4.0. Empirical Results

This section provides descriptive statistics to condense the study data into single or limited numerical quantities. Then the coefficients of the correlation analysis as provided by Karl Pearson testing technique, followed by bounds cointegration results, and finally, the ARDL regression model as developed by Pesaran et al. (1999, 2000).

4.1.Descriptive Analysis

Table 2: Summary statistics

Description	**HDI**	**CGI**	**GDP**	**EMP**
Mean	0.408	3.87e-08	7.226	72.89
Variance	0.002	1.000005	735.2	0.256
Standard Deviation	0.047	1.000002	27.11	0.506
Minimum	0.33	-1.438	-43.13	70.73
Maximum	0.48	1.385	98.79	73.43
Skewness	0.232	-0.219	1.277	-2.829
Kurtosis	1.734	1.457	6.179	12.41
Observations	31	31	31	31

Source: *Researchers' computation from the described study data*

Summary statistics indicate that human welfare averaged 0.40774 between 1990 and 2020, with the highest being 0.48. For this reason, Malawi is classified as a low

[1] Authors computation from the six Worldwide Governance Indicators - Appendix A1

human-developed country. The spread around the mean was low, as indicated by its standard deviation. The distribution for welfare and governance resembles that of a normal distribution due to the smallest skewness close to zero, except that they are slightly platykurtic (flatter) since the computed kurtoses are less than 3. Unlike welfare and governance, the distribution for growth is leptokurtic - very thing and taller than a normal distribution. The employment rate in Malawi is fair as it has never been below 70.73 and not above 73.43 for the entire period of this study (See Appendix A3).

4.2. Pearson Correlation Analysis

Integrating the ideas of Evans (2002) and Hejase & Hejase (2013), the study unveiled the association between variables by drawing the correlation matrix. Karl's correlation matrix shows the strength of association between any pair of variables. This is shown in table 3 below;

Table 3: Correlation matrix

Variable	**ΔlnWEL**	**ΔlnGDP**	**ΔlnCGI**	**ΔlnEMP**
ΔlnWEL	1.0000			
lnGDP	-0.0636	1.0000		
ΔlnCGI	0.2979	-0.0250	1.0000	
ΔlnEMP	0.1758	-0.1291	0.0689	1.0000

Correlation range between 0 – 0.19 is very weak; 0.2 – 0.39 is weak; 0.4 – 0.59 is moderate; 0.6 – 0.79 is strong; and 0.8 – 1.0 is very strong. The guide is suggested by Evans (2002) and Hejase & Hejase (2013).

Correlation results in table 3 above were performed on the natural log GDP, which is stationary in level, and on the first difference of the natural logs of CGI, HDI, and EMP. The outcome shows that the natural logs of GDP and EMP indicate a 'very weak' negative and positive relationship with the dependent variable (HDI), respectively. CGI shows a 'weak' positive relationship with HDI. On the other hand, CGI, EMP, and GDP reveal a 'very weak' relationship with each other.

4.3.Unit roots test

One of the most important properties of time series analysis is that data must be stationary. This property circumvents problems associated with the non-stationarity

of time series, such as spurious regression and persistence of shocks. The study used the Augmented Dickey-Fuller (ADF) test for series stationarity.

Table 4: Augmented Dickey-Fuller Test (ADF)

Level				First difference			
Variable	**t-statistic**	**5% CV**	**Prob**	**Variable**	**t-statistic**	**5% CV**	**Prob**
lnWEL	-0.892	-1.706	0.1904	ΔlnWEL	-2.111	-1.708	0.0225
lnCGI	-1.045	-1.706	0.1527	ΔlnCGI	-2.294	-1.708	0.0152
lnGDP	-4.502	-1.706	0.0001	--	--	--	--
lnEMP	0.083	-1.950	0.939	ΔlnEMP	2.477	-1.950	0.023

Source: Author's analysis of study data using STATA

Unit roots test results lead us to fail to reject the null hypothesis that welfare, governance, and employment are not stationary in level. However, we can reject this at 5% after the first difference. On the other hand, the GDP Per capita growth rate is significant in level. Consequently, it is more appropriate to use the ARDL model as some variables (GDP) give an integration of order zero I(0), and others (HDI, CGI, and EMP) are integrated of order one I(1). According to Pesaran et al. (1999, 2002), the ARDL model can only be applied to data with series integrated of order one or order zero or both and not otherwise.

4.4. Cointegration Tests

The Akaike Information Criteria was employed as a guiding principle, and it yielded a maximum lag order of 1 for the conditional ARDL VECM regression. Table 5 reports the computed F-statistic of all variables because each variable in an ARDL model is treated as a dependent variable (McNown et al., 2016). For all variables, including the human development index, the dependent variable of interest, the F-statistic is higher than the upper bound at a 5% significance level except for employment.

Table 5: Bounds Tests cointegration results

Dependent Variable	Lag	F-statistics	Lower Bound (5%)	Upper Bound (5%)	Outcome
ΔlnWEL	1	17.063	3.23	4.35	Cointegration
ΔlnCGI	1	15.833	3.23	4.35	Cointegration
lnGDP	1	11.732	3.23	4.35	Cointegration
ΔlnEMP	1	0.429	3.23	4.35	No Cointegration

NOTE: the asymptotic bounds are obtained from case III unrestricted intercept of Table C2, with no trend for k=3 (Pesaran et al., 2001). Lower bound I(0) = 2.74 and upper bound I(1) = 4.85 at 5% significance level.

Normalising the regression on Human Welfare (HDI), the calculated F-statistic of 17.063 is higher than the upper critical value at the 5% level. Therefore, we reject the null hypothesis of no cointegration and proceed to launch the long-run relationship among the variables in the regression. Likewise, the calculated F-statistics for governance (CGI) and real GDP per capita growth rate (GDP) are higher than the upper critical value. Thus, implying the long-run relationships among the series. The null hypotheses could be rejected if the computed F-stat was lower than the lower bound critical values. However, the computed F-stat. for EMP fell below the lower critical bounds, implying no cointegration. Befitting this study's objective, we run the vector error correction model to establish the long-run relationship among the variables when human welfare is normalised as the dependent variable.

4.5. ARDL model results

Table 6a below presents the results of the ARDL (1, 1, 1) (HDI vs CGI & GDP) model obtained by normalising welfare as the dependent variable of interest. Table 7a represents the results of the ARDL (1, 1, 1, 0) (HDI, CGI, GDP & EMP) with variable Employment rate included as an additional term. The new term is added to check if the marginal effects of governance on welfare do not change with changes in the size of R-square.

The estimated coefficient of the long-run model shows that good governance has a very significant and positive impact on welfare in Malawi. The coefficient is statistically significant at a 1% significance level, such that we reject the null

hypothesis that good governance does not influence human welfare in Malawi. The results indicate that a one-unit improvement in governance will lead to a 0.06-point increase in well-being. The reason is not far-fetched; as per the a priori hypothesis, good governance is likely to translate to the absence or minor corruption, which helps disseminate resources to those in need. Good governance also means that no one is above the law. All people will get equal access to property rights and civil and criminal protection. Voice and accountability mean that people will freely participate in electing their leaders and decision-making on welfare issues and overall national importance in a process called devolution. Since a more significant percentage of the majority of voters in Malawi are poor and from rural areas, political administrations will have no choice other than to prioritise pro-poor policies, eventually improving well-being.

On the other hand, political stability or the absence of violence or terrorism means a peaceful coexistence in a society. People will be free to carry out their economic activities. Government effectiveness means that the government is result-oriented, and its regulatory institutions are efficient in smoothening market activities. The execution of fiscal policy measures how effectively the government manages macroeconomic stability. Regulatory quality implies that the government will ensure that the products sold by firms are not harmful and that firms are responsible for defective products. They ensure that the property traded belongs to the one selling while also ensuring a proper procedure in changing ownership of traded items.

However, the estimated coefficient of the short-run relationship indicates that good governance is highly statistically significant but negatively related to welfare. It shows that a one-unit improvement in governance results in a fall in human welfare status by 0.0411 points.

Furthermore, the estimated coefficient shows that the economic growth rate is statistically insignificant in the long run. This result is also the case when the employment rate is included as an additional term. Economic growth and employment levels do not influence the welfare of the majority of the residents in Malawi. This finding concurs with Sen's argument that using goods or output to measure welfare or a country's economic status is too crude. It does not reflect the actual fair and equal distribution of wealth in a society. Malawi is a capitalist society where the 'haves' accumulates wealth at the expense of the 'have nots.' For example, Malawi maintained its Gini coefficient for 2017 and 2018 at 37.30%, showing high income or consumption deviation from a perfectly equal distribution.

Mussa and Masanjala (2011) observed an increasing polarisation in consumption expenditure between the rich and the poor. The study revealed a three times gap increase between the wealthiest 10% of Malawians and the poorest 40% in just seven years between 2004 and 2011. This increase in inequality came in the wake of an

average increase in economic growth of 7% between 2000 and 2010. Therefore, high economic growth rates do not always guarantee pro-poor, inclusive, or egalitarian benefits. Indeed, real GDP per capita is just an average measure and does not sufficiently explain the welfare of the majority in a society.

Table 6a: ARDL Estimated Coefficients (3-variable linear regression analysis)

Dependent Variable: ΔlnHDI				
Long-run results				
Regressor	Coefficient	Standard Error	t-statistic	Prob
Constant	0.068	0.034	2.01	0.056
ΔlnCGI	0.060	0.016	3.71	0.001
ΔlnGDP	-0.010	0.007	-1.48	0.152
Short-run results				
ΔlnCGI	-0.041	0.014	-2.87	0.009
ΔlnGDP	0.010	0.005	1.174	0.095
ECT_{t-1}	-1.252	0.177	-7.06	0.000

Note: *-- denotes inestimable values; D-W for Durbin Watson test; S.K. for Skewness-Kurtosis test; B-P for Breusch-Pagan test.*

Table 6b: Diagnostic tests for the first model (Without employment variable)

Diagnostic Tests (P-Values)			
R-squared:	0.694	AIC:	-1.845
Adj R-squared	0.628	Normality (S.K.):	0.105
Serial Corr. Test (D-W):	2.404	Heteroskedasticity (D-W):	0.085
Specification (Ramsey RESET):	0.284		

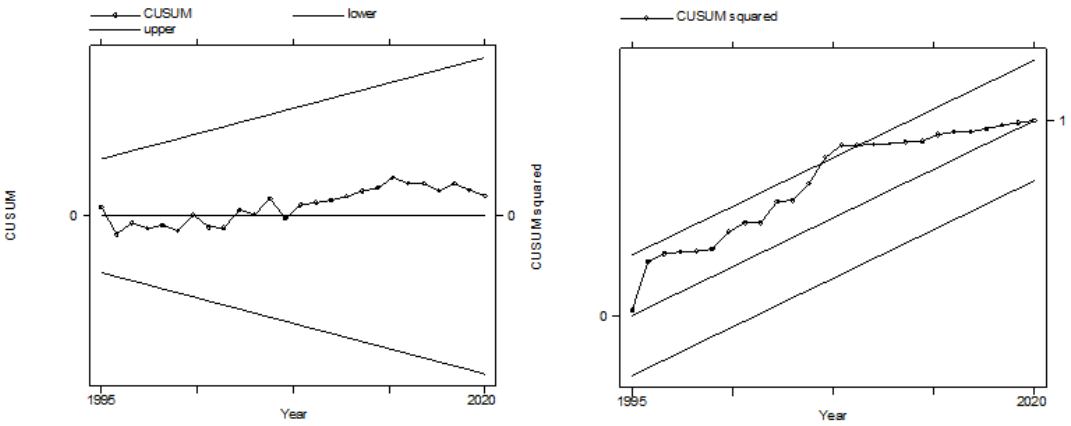

Figure 1: *The Cusum Square Model Stability test (5% significance level)*

The p-values for each Diagnostic test for the first model are greater than 0.05. We fail to reject the null hypotheses that there is no heteroscedasticity, model misspecification, no autocorrelation, and residuals are not multivariate normal at a 5% significance level. The Cusum square model stability test indicates that the model is stable as the trend falls within the 5% bound for the entire study period. The ECT yields a significant speed of adjustment with the correct sign, which shows convergence to the long-run equilibrium after some socio-economic and political shocks. The same applies to the re-estimated model with the employment rate as an additional variable.

Indeed, Table 7b below shows that despite adding another variable to the regression, the sign of all estimated coefficients has remained the same, especially governance,

the independent variable of interest (HDI, CGI, GDP, EMP). Good governance remains highly significant while depicting the same negative relationship in the short run and a positive relationship in the long run. The a priori expectation of the additional term is that an increase in the employment rate will increase human development because employed people tend to afford necessities such as education, healthcare, and food. However, employment is insignificant in the long run and inestimable in the short run, so it does not directly influence human welfare in Malawi.

Table 7: ARDL Model Re-estimation with an additional variable (The employment rate)

Dependent Variable: ΔlnHDI				
Long-run results				
Regressor	Coefficient	Standard Error	t-statistic	Prob
Constant	0.067	0.034	1.95	0.064
ΔlnCGI	0.058	0.016	3.65	0,001
ΔlnGDP	-0.009	0.007	-1.37	0.185
ΔlnEMP	0.862	1.001	0.86	0.398
Short-run results				
ΔlnCGI	-0.041	0.014	-2.84	0.010
ΔlnGDP	0.010	0.005	1.69	0.105
ΔlnEMP	--	--	--	--
ECT_{t-1}	-1.270	0.179	-7.07	0.000

Note: *-- denotes inestimable values; D-W for Durbin Watson test; S.K. for Skewness-Kurtosis test; B-P for Breusch-Pagan test.*

Table 7b: Diagnostic tests for the first model (With employment variable)

Diagnostic Tests (P-Values)			
R-squared:	0.704	AIC:	-10.275
Adj R-squared	0.623	Normality (S.K.):	0.159
Serial Corr. Test (D-W):	2.492	Heteroskedasticity (D-W):	0.232
Specification (Ramsey RESET):	0.455		

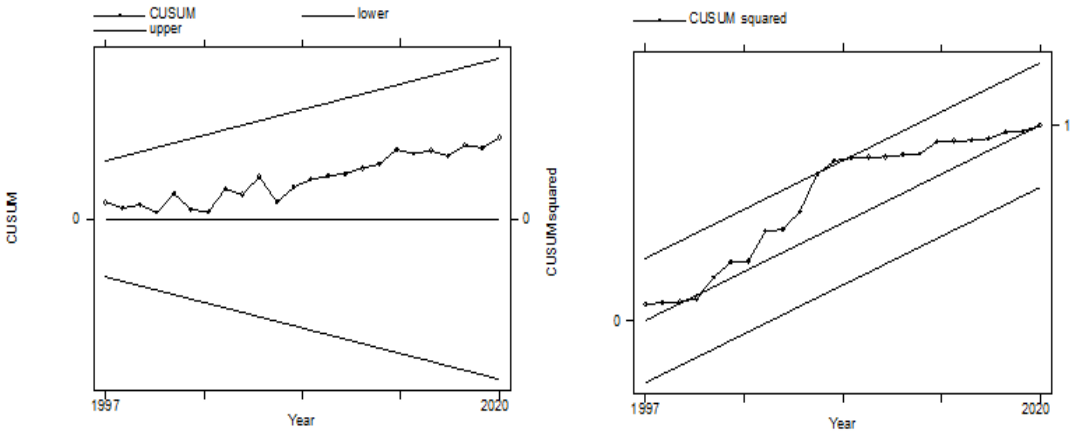

Figure 2: The *Cusum* Square Model Stability test (5% significance level)

4.6. Granger Causality Estimation

It is an inevitable fact that cointegration between two variables does not explicitly show the direction of forecast influence between any pair of time series. According to Fisher (1993), the economic theory points to a causal relationship in at least one direction in any co-integrated series. Granger causality tests (the Block Exogeneity Wald test and Pairwise) are conducted to detect whether one-time series helps forecast one another. In line with E. Gul and Ekinci (2006), the causal relationship (both short and long-run causality) between variables can be established using probability and F-statistics under the null hypothesis of no causality. Table 8 below presents the estimate of F-statistics and the probability values.

Table 8: Block Exogeneity Wald Test

Dependent variable: ΔlnHDI			
Null Hypothesis	Excluded	F-stat	Prob
CGI does not granger cause HDI	ΔlnCGI	3.117	0.091
GDP does not granger cause HDI	lnGDP	3.567	0.072
EMP does not granger cause HDI	ΔlnEMP	0.795	0.382
All indep. Var. do not granger cause HDI	ALL	3.692	0.026
Dependent variable: ΔlnCGI			
HDI does not granger cause CGI	ΔlnHDI	0.112	0.303
GDP does not granger cause CGI	lnGDP	0.003	0.960
EMP does not granger cause CGI	ΔlnEMP	1.978	0.170
All indep. Var. do not granger cause CGI	ALL	1.346	0.284
Dependent variable: lnGDP			
CGI does not granger cause GDP	ΔlnCGI	0.335	0.568
HDI does not granger cause GDP	ΔlnHDI	0.047	0.831
EMP does not granger cause GDP	ΔlnEMP	0.701	0.411
All indep. Var. do not granger cause GDP	ALL	0.307	0.820
Dependent variable: ΔlnEMP			
CGI does not granger cause EMP	ΔlnCGI	0.774	0.388
HDI does not granger cause EMP	ΔlnHDI	0.008	0.932
GDP does not granger cause EMP	lnGDP	0.442	0.513
All indep. Var. do not granger cause EMP	ALL	0.397	0.756

The F-statistic of 3.1167 for governance when welfare is a dependent variable implies that we fail to reject the null hypothesis that governance does not granger cause human welfare at the 5% confidence interval. Similarly, GDP has a small F-statistic of 3.5669. Thus, welfare is not granger-caused by real GDP per capita growth rate at a 5% confidence interval. Nevertheless, the probability of the null block exogeneity test is significant at a 5% significance level. Therefore, we reject the null hypothesis and conclude that when taken together, all independent variables (governance, growth rate, and employment) enviably granger causes human development in Malawi.

Notably, the results indicate no Granger causality of any kind when governance, growth rate, and employment rate are treated as dependent variables. Therefore, we conclude a sole existence of the unidirectional Granger-causality of all the independent variables towards human development.

5.0. Discussion

This paper has examined the impact of governance on human welfare development and used two model specifications. The employment rate was added to the initial model to verify the impact of an increase in the size of the R-square on the marginal effects of governance on human welfare. It is observed that the probability and the sign of the coefficient remained the same. Based on the second model, the results lead us to reject the null hypothesis that good governance has no long-run impact on welfare development in Malawi. For example, a one-unit enhancement in governance is projected to improve human welfare development by 0.058 per cent point. The results align with Fayisa and Nsiah's (2013) findings, who observed a positive impact of governance on economic growth in Sub-Saharan Africa. Similarly, Noha and I-Ming (2016) noted that governance and economic growth positively impact economic growth in nine Middle East and North African (MENA) countries. Most importantly, these two studies reveal that the impact of governance is more pronounced in low-income countries like Malawi and those countries whose growth has experienced deterioration accompanied by deterioration.

On the contrary, the estimated short-run coefficients of the second model reveal that good governance have a significant but negative impact on human welfare development in Malawi. For example, a one-unit enhancement in governance initiatives will decrease human welfare development by 0.041 per cent points. Similarly, Noha and Jhonsa (2014) observed that 22 MENA countries had poor performance in all the governance indicators. However, their economic growth was higher than other countries in a study sample of 197 countries.

This finding brings the concept of neopatrimonialism – a standard traditional political system associated with rent-seeking behaviour, corruption, and clientelism (Bratton and van de Walle, 1997; Ndulu and O'Connel, 1999). According to Cammack and

Kelsal (2011), neopatrimonialism is not always detrimental to the development of African countries as enormously denounced by the donor orthodox. Indeed, it is contended among some scholars that high cases of corruption, restricted voice and accountability, and a weak rule of law performance have their benefits—tenets of neopatrimonialism help motivate political leaders to optimise the use of public funds. In return, they reap the benefits of high returns from public investments through corruption or exorbitantly raising their contractual earnings. Therefore, we argue that the benefits of neopatrimonialism yielded by public and private officials and politicians through dubious means will trickle down to their cronies and then to the rest of the residents in a country. The sign of the coefficient shows that increased efforts to advance good governance over the deep routed neopatrimonialism will worsen the living standards of people in the short run.

6.0. Conclusions and Policy Implications

This paper brings to light two main contributions. Firstly, the paper successfully executed the "Composite Governance Index' (CGI) which condenses into a single index all the six indicators of the worldwide governance indicators (WGI), using a Principal Component Analysis (PCA). The governance indicator used as an independent variable of interest in this study is a composite quantity of all six variables of Malawi's Worldwide Governance Indicators (WGI). This index can be used as a valid indicator of the government's managerial ability, efficiency and effectiveness. The second contribution is that we could quantify the marginal contribution of the enhancement in governance on human welfare development using human development index data for Malawi.

The paper finds that governance is statistically significant both in the short and long run. In the long run, the positive relationship implies that governance positively influences the welfare status of residents in Malawi. This outcome means governance-related institutions should be decisive in their operations to ensure effective and efficient performance in their roles and results. In particular, government institutions and agencies with regulatory capacity will effectively ensure that the tenets of governance are felt in private sector institutions thereby improving the labour, product and capital market environments where people yield well-being through the exchange.

In particular, it has been demonstrated that rule of law performance is critical to international, continental, regional, and country human development (IDLO 2020). Upon strengthening the rule of law system and its implementation in Malawi: corruption will be checked; government effectiveness and agencies' quality will be scrutinised through monitoring of government agencies and parastatals as well as empowering regulatory bodies such as the Malawi Revenue Authority (MRA), Reserve Bank's Pension and Insurance Supervision (PISU) Department, Malawi Electoral Commission (MEC), the Malawi Communication Regulatory Authority

(MACRA), Malawi Energy Regulatory Authority (MERA), Malawi Bureau of Standards (MBS) among others. On the other hand, empowered police and army will significantly reduce criminal cases; protect private property rights, and ensure that all people equally enjoy peace. It will also enhance trade and market activities due to canons and spurs of trust and assurance in the exchange amongst all economic agents.

On the contrary, the estimated models' short-run results reveal that good governance negatively influences human welfare development. The results imply that corruption, rent-seeking and clientelism are deep-rooted among political leaders and private and public officials. As such, International, regional and national initiatives toward good governance would lead to a deterioration in human welfare in the short run. Increased efforts to strengthen good governance will abruptly collide with neopatrimonialism as it is well-established and trusted by its practitioners and the afflicted residents. In other words, neopatrimonialism has become normal and is highly supported by most residents through bigmanism or cronyism. Therefore, solutions must be implemented to avoid bruising people in the short run before good governance overcomes neopatrimonialism. Evidence shows that governance only yields positive marks in the long run.

This paper suggests that national efforts to promote good governance may yield a considerable opportunity cost to human welfare in the short run. More public funds and unconditional donations will be channelled to governance initiatives. More funds will be spent on corruption awareness campaigns, expanding the police and army, government scholarships for civil servants to strengthen government effectiveness and regulatory quality, and training law practitioners to strengthen the rule of law. Therefore, the government should draft possible solutions to potential macroeconomic instabilities through fiscal instruments. For example, simultaneous training of many government officials abroad may worsen the balance of payment and exchange rate. At the same time, decentralisation of regulatory bodies and other governance bodies will increase the fiscal budget, which may threaten capital inflows if the government opts for higher tax charges as a means of sourcing budgetary revenue.

The null block exogeneity causality indicates that GDP per capita growth granger causes welfare. The short-run estimate is positive and significant at 10%. Therefore, the estimated Granger causality relationship and the 90% statistical power enable us to conclude that the growth in national output influences human well-being. Without a shadow of a doubt, we urge the government of Malawi to continue striving hard to increase economic growth and make Malawi an inclusively wealthy, self-reliant, industrialized, value-added exporting country to increase export earnings. In return, the country will become an upper-class middle-income country by 2063. The government should launch various incentives for domestic investments. The incentives could be by lowering interest rates and profit taxes, especially for Small and Medium Enterprises (SMSs) and, at the same time, guarding against long-term

inflation through massive supply-side policies such as research and development, infrastructural improvement, and technological advancement (reducing tariffs on production equipment, tools and machinery).

To this end, the study suggests that crucial reforms be made to empower governance institutions such as the Judiciary, Anti-Corruption Bureau, regulatory bodies and security departments. To circumvent inflationary pressures arising from expansionary fiscal measures to promote governance, the government need to engage in massive supply-side policies to contain potential inflationary pressures.

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APPENDIX A1

I. Principal Component Analysis (PCA)

This section presents the use of the principal component analysis (PCA) method in the formulation of the primary explanatory variable of this study – composite governance index (CGI) based on Noha & I-Ming (2016). Economists have sparingly used this method but has been a prevalent data reduction method among statisticians and data scientists since Pearson's 1901 paper.

If there are n observations for p variables, then the data matrix can be presented as

$$X = \begin{bmatrix} X_{1,1} & \cdot & \cdot & X_{1,p} \\ X_{1,1} & \vdots & \vdots & X_{2,p} \\ \cdot & \cdot & \cdot & \cdot \\ X_{1,1} & \cdot & \cdot & X_{n,p} \end{bmatrix}; where\ i = 1 \dots n, j = 1 \quad (1)$$

The main objective underlying the statistical PCA is to geometrically estimate data matrix X from an extensive dimension l to a significantly small dimension m so that $l<<m$ without compromising the information of the original data. That is, the reduced numbers (X_1, …, X_p) produced from PCA helps to circumvents the problem of autocorrelation in the original large data matrix (Principal Components; PC_1, …, PC_k)

Mathematically, the initial principal component is a linear combination of X_1 to X_p observed variables that account for an enormous variance among them:

$$PC_1 = \delta_1 X_1 + \delta_2 X_2 + \ldots + \delta_l X_l \quad (2)$$

The coefficient values represent the loading vector and are specifically designed to deal with PC_t Variance inflation. Similarly, all post principal components ($PC_2, PC_2 \dots PC_l$) present linear combinations of the variable in data matrix X with an intolerable magnified variance. Even though given the limit, these post P.C.s ought to be diagonals of each's preceding P.C. It is possible to track all likely P.C.s (*l in total*) as presented in the original matrix. However, our target is to excavate a small value of P.C.s that will contain all the information depicted in the data matrix X. Deriving the principal component requires the algorithm presented below:

II. Derivation of Principal Components (P.C.s)

According to Jollife and Cadima (2002), the singular value decomposition (S.V. is critical to the algorithm to deriving P.C.s is based on the singular value decomposition (SVD) method is critical to the algorithm for deriving P.C.s. The Kaiser-Harris's stopping rule, Cattell's Scree test, Parallel analysis, and Percent cumulative variance are the four main criteria used to decide the number of P.C.s.

First, the capital letter W is used to represent the variance-covariance matrix. Where W is related to data matrix X in the form of; $\mathrm{W} = \frac{\mathrm{X^T X}}{\mathrm{n-1}}$, an *l**P matrix and the superscript "T" is the transpose operator. W is a symmetric matrix such that it can be diagonalized as;

$$\mathrm{W} = \mathrm{V}\Omega\mathrm{V^T} \tag{3}$$

Where V is a matrix of eigenvectors and Ω is a diagonal matrix with the eigenvalues. The matrix V is termed Principal Axes and is crucial in deriving P.C.s. By applying the SVD method to X, we obtain the following:

$$\mathrm{X} = \mathrm{U}\Sigma\mathrm{V^T} \tag{4}$$

As indicated earlier, X is the data matrix with dimensional n by *l*. U and V are both orthogonal squared matrix with dimension n and *l*, respectively. Σ is diagonal with diagonal entries that represent singular values.

Equation 3 and 4 depicts the following relationship:

$$\mathrm{W} = \frac{\mathrm{X^T X}}{\mathrm{n-1}} = \frac{(\mathrm{U}\Sigma\mathrm{V^T})^{\mathrm{T}}(\mathrm{U}\Sigma\mathrm{V^T})}{\mathrm{n-1}} = \frac{\mathrm{V}\Sigma^2\mathrm{V^T}}{\mathrm{n-1}} \tag{5}$$

By comparing equations 3 to 5, it is observed that the square of singular value (from Σ) is the eigenvalues derived from the diagonalization of W(or $\mathrm{X^T X}$).

Where λ_t(t = 1…*l*) denotes the eigenvalues such that the size of each λ to the sum of all λs accounts for the proportion of variances in the original data matrix that can be captured by the corresponding principal component.

The rearrangement of λ_l from the highest to the smallest from λ_1 to λ_l, λ_1 and the corresponding eigenvector (or first principal components PC_1) accounts for the largest percentage of variances in X. The correlation of matrix X is applied prior to the derivation of P.C.s to prevent scaling problems. Consequently, the principal components are derived by post-multiplying data matrix X with the principal axes V. Alternatively, the following equation can be used in the derivation of P.C.s:

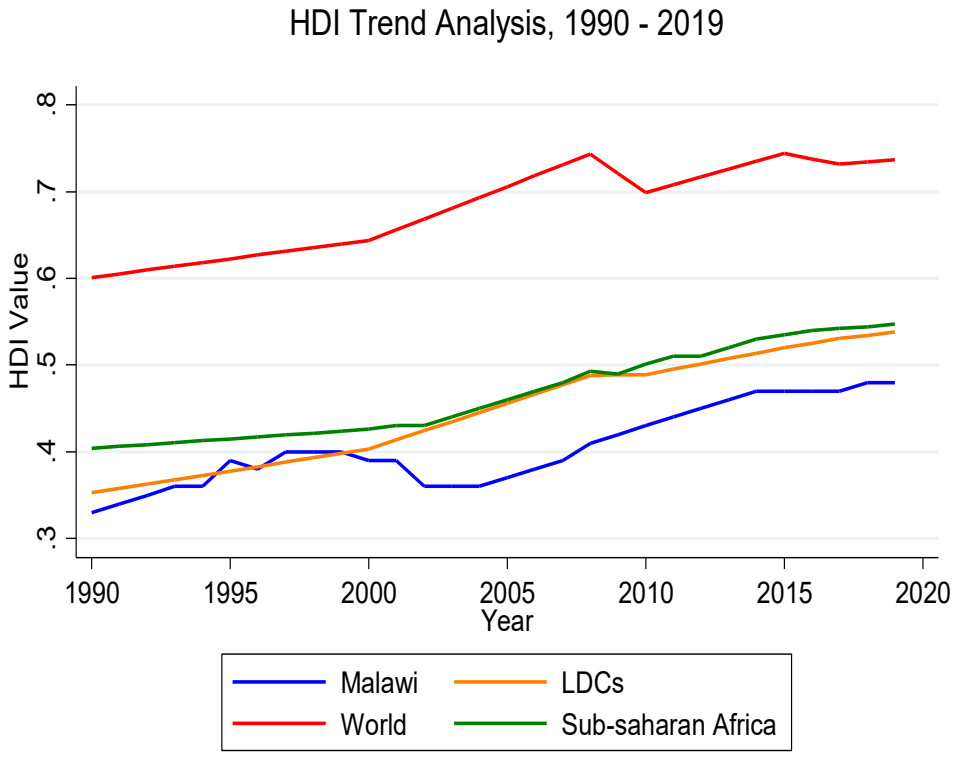
$$\mathrm{XV} = \mathrm{U}\Sigma\mathrm{V^T V} = \mathrm{U}\Sigma \tag{6}$$

Such that according to equation (6), either of the following notations can be used to attain all P.C.s:

$$\mathrm{PCs} \Rightarrow \mathrm{XV} \equiv \mathrm{U}\Sigma \tag{7}$$

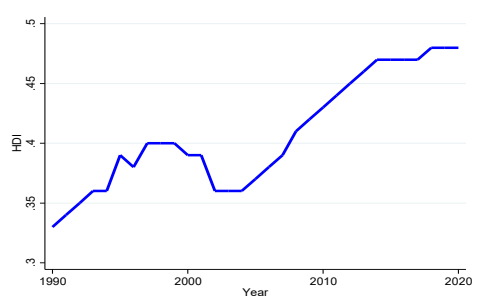
APPENDIX A2 (Source: Author's Analysis)

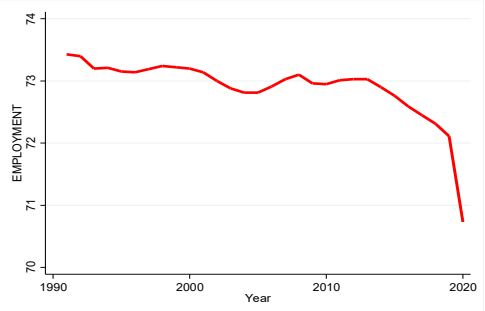
I. Comparative Trend Analysis of Malawi's HDI

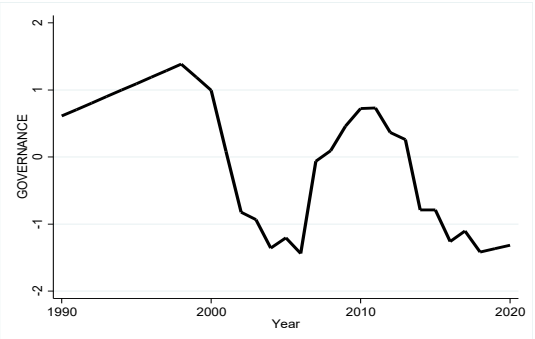


APPENDIX A3 (Source: Author's Analysis)

I. Time Plots







II. Distribution Plots