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Institutional Quality, Foreign Direct Investment and Sustainable Economic Growth in Emerging African Economies

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ABSTRACT: *Foreign direct investment (FDI) is an essential determinant of development for Africa. It encourages sustainable economic growth. However, in most African economies, quality of institution plays a vital role in enhancing the inflow of FDI. The objective of this study therefore is to examine the effect of institutional quality, foreign direct investments on sustainable economic growth in emerging African economies. The study employed pooleddata for 8 African countries (Nigeria, Botswana, Ghana, Kenya, Mozambique, Tanzania, Uganda and Zambia) using the panel data methodology for the period within the years 1990 and 2020. The paper adopted the fixed effect regression model based on the results of the Hausman test in estimating the effect institutional quality, FDI inflows and sustainable economic growth in emerging African economies. The variables of the model included; GDP per capita GDPPC, foreign direct investment FDI, domestic investment DOMINV, corruption perception index CPI, political stability POLSTAB and exchange rate EXR. The study found and concluded that using panel fixed effect, institutional quality, (proxy with corruption perception index CPI and political stability POLSATB) and FDI both have a significant relationship with sustainable economic growth in emerging African economies. The study therefore recommends that Governments in these nations need to create and encourage a conducive environment that will increase FDI inflows in the various sectors of the economy since the results of the study have shown its growth enhancing capability. Control of corruption and political stability has shown to aid and encourage the entrenchment of rule of law, democracy and justice. Corrupt tendencies need to be reduced to the barest minimum. Exchange rate stability is to be pursued vigorously and attained in other to attract investments (domestic and foreign)*

KEYWORDS: institutional quality, FDI, sustainable economic growth and emerging African economies.
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INTRODUCTION

Institutional quality is imperative for host economies in other to attract foreign direct investment, FDI. This is because quality of institutions raises vital issues in the FDI-economic growth nexus (Ogundipe, Oye, Ogundipe and Osabohien, 2020). The sub Saharan region is notorious for gross capital deficiency and the importance of external investments in promoting economic growth and development within the region cannot be overemphasized. Osabohien (2020) notes that FDI is an essential factor in Africa's growth and development efforts. Consequently, there has been a shift of emphasis and efforts by successive governments in the continent to globally integrate their countries to increase the flow of capital through FDI in their respective countries as this will in turn help economic recovery of the continent and keep African countries in good positioning growth in other to achieve Sustainable Development Goals (SDGs). Institutional quality in recent years has been shown to be one of the prominent factors that encourage the inflow of FDI in developing countries – Anghnel, 2005; Daude and Stein, 2007; Wernick 2008, 2009; Bisson, 2011. Some researchers have paid attention to the critical roles played by both political and economic institutions in ensuring the inflow and stability of FDI in host economies – Roberts, 2006; Benassy-Quere et al 2007; Busse and Hefeker 2007; Jensen 2008 and Biglaiser 2009. In Nigeria, Nwankwo (2006) found that macroeconomic stability promote FDI while political instability discourages it in Nigeria. Oke et al (2012), also found that energy consumption and political stability are important predictors of FDI inflows. Kurul and Yalta (2017) found that not all indicators of institutional quality have a significant impact on foreign investors' confidence in developing countries. The study specifically found that control of corruption, government effectiveness, and the voice and accountability have a significant and positive relationship with FDI inflows in developing countries. This finding thus indicates that reducing corruption and the burden of bureaucracy, improvements in the political system, transparency and accountability on the part of politicians lead to increasing FDI inflows and encourage Multinational Corporations MNCs to bring in capital, technology and equipment into developing countries. Actually, New Institutional Economics NIE points out that institutional quality improves when an environment is created (for example, by reducing transaction costs through providing better education, protecting property rights, providing better environment for businesses mainly through ensuring enforcement of contracts, improving rule of law) that incentivizes people to invest in the economy, and in turn contribute to sustainable economic growth.

As noted earlier, the quality of institutions in recipient economies is a critical in determining the flow of FDI in every country. It ascertains the quantity of inflow and the benefits that can accrue to the economy. According to UNCTAD data, although FDI flows have become widely distributed among countries in recent times, the distribution is skewed in favour of Asia who receives the lion's share of FDI of flows and Africa receiving very little. Among developing countries, the

distribution of world FDI inflow is uneven. For example, in 1997, developing Asia got 22%, Latin America and the Caribbean got 14% and Africa got a paltry 1% (Mallampally and Sauvant 1999). Africa's meagre share of FDI inflows may not be unconnected with her poor quality of institutions. Recent available data indicates that inflow of imported capital plunged from $1.87 trillion in 2016 to about $1.43 trillion in 2020. This according to the World Investment Report is in sharp contrast with other macroeconomic indicators that performed better in 2017. The impact of the COVID-19 pandemic in 2020 further accentuated the decline of foreign capital inflow in African countries. This development poses a huge challenge for governments and economic managers and policy makers in the continent. Asiedu (2006) and Cleeve (2008) agree that good quality infrastructure, steady macroeconomic and political environment, endowment of natural resources, existence of substantial local markets, ethical framework and a good legal system facilitates the flow of FDI while noting that accountability issues, political instability and disregard for judicial pronouncements scare investments. It is noteworthy to mention that the recent political developments in Mali, Congo DRC, Guinea and Bissau do not present the continent in good light in terms of attracting FDI at the moment.

Very few studies have examined the nexus between institutional quality, foreign direct investment and economic growth and development in African countries – Osabohien et al (2020) examined the nexus between quality of institutions, FDI and economic development in selected African countries. Wang et al (2021) in their paper ascertained the effect of institutional quality, FDI on economic growth and environmental quality in African countries. Some other studies examined the effect of FDI on economic growth in African Countries while some others ascertained the role of institutional quality in the economic growth process of African Countries. There seem to be limited attention on the nexus between FDI, institutional quality and sustainable economic growth in African Countries. This paper intends to fill that gap in literature by comprehensively investigating the interrelationship among institutional quality, foreign direct investment and sustainable growth in the emerging African economies – Nigeria, Botswana, Ghana, Kenya, Mozambique, Tanzania, Uganda and Zambia using the panel data methodology. The emerging African economies are a group of countries in Africa upgraded by the IMF given the remarkable progress made by African economies in the last few years especially in attracting FDI to their countries. For the purpose of this study, these economies were chosen based on the size of their markets and their contributions to growth on the continental level. This paper also innovates in terms of the explanatory variables used to proxy for institutional quality. Wang et al (2021) measured institutional quality using Heritage Economic Freedom Index divided into four pillars, namely – efficiency of the regulator, size of government, open market and rule of law. This paper measures institutional quality using corruption perception index CPI, and Political Stability POLSTAB.Corruption perception and degree of political stability enhances economic growth as observed by Ogbuabor et al (2020).

The objective of this paper, therefore, is to ascertain the impact of institutional quality, foreign direct investment on sustainable economic growth in emerging African economies using panel data methodology. In line with the objective, in this paper, the author hypothesized that institutional quality and foreign direct investment do not have any effect on sustainable economic growth in the emerging African economies.Besides contributing to existing pool of literature in the subject matter area, the results of this study will expand the frontiers of knowledge as well as serve as guide for governments and policy makers in emerging African economies especially as they design government actions, programmes and policies that relates to the flow of FDI.

Conceptual, Theoretical and Empirical Literature

Conceptual Literature

Institutional Quality

Institutional quality is a concept that relates to law, rights of individual and the sophistication of government regulation and services. Institutional quality and economic performance are closely related. It is argued that institutional quality plays a crucial role in this relationship. Institutional development brings to the fore, growth potentials, and it is often not affected by diminishing returns. Data has shown that regions or countries with excellent institutional quality display much success in adopting frontier technology and higher productivity levels since the beginning of this millennium. (Bruinshoofd, 2016). The pioneering work into institutional quality was carried out by Douglas North in 1980 and 1991. He defined institutions as 'humanly devised constraints that shape interaction between people. Institutional quality in North's framework improves with the limitations imposed on executive power. Such limitations may be either formal rules or informal constraints and their strength is shaped by the characteristics of enforcing them. The idea being that limitations to executive power reduce the *de jure* position of a country's executives to put themselves above the law thus ensuring that individuals, entrepreneurs, challengers of the present economic system, are protected by law in their ventures and their investments in human and physical capital as well as new technological endeavours. These endeavours are crucial to speed up the widespread adoption of frontier technology available elsewhere and to push out the technological frontier by investing in research and development, particularly in disruptive technologies. Some of these endeavours are highly uncertain by nature, and their disruptive character additionally makes them a challenge to those in positions of formal and informal power, be that political or economic. Therefore there is need for sufficiently high quality institutions to ensure that challengers and incumbents receive equal legal protection. (North,1991). Acemoglu, Johnson and Robinson (2013) acknowledge the interplay between economic outcomes and institutional quality. In emerging economies, improvements in institutional quality triggers technology-upgrading outcomes thus creating total productivity gains (Jung, 2020). Many researchers have asserted that the level of growth and development in most emerging economies is determined, to a very large extent, by the quality

of institutions (La Porta, *et al.*, 1998; Rodrik, *et al.*, 2006; Haq and Zia, 2006; Eicher and Rohn, 2007; Zhuang, *et al.*, 2010; Chang, 2011; Acemoglu & Robinson, 2013; Iheonu, *et al.*, 2017; Kebede & Takyi, 2017; Olanrewaju, 2018). This suggests that countries with relatively high institutional quality in terms of capacity and character tend to formulate and implement policies and programmes that would more quickly break the 'mould' of long-aged pervasive poverty, huge inequality gaps and mounting unemployment rate, characterising most developing economies across the globe. Institutional quality can be constructed from World Bank Governance Indicators, Ease of Doing Business Indicator, Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption (Corruption Perception Index).

Foreign Direct Investment

Foreign direct investment FDI involves an investor acquiring substantial control and interest in a foreign enterprise or setting up a subsidiary in a foreign country (OECD, 1996). FDI inflows have greatly increased in most regions of the world (UNCTAD, 2012). FDI has continued to remain the largest and most consistent source of external finance, relative to private capital flows like official development assistance (ODA), portfolio investments, bank loans and international remittances (UNCTAD, 2017). Also, FDI is less volatile than other types of capital flows (Noorbakhsh et al., 2001). It is generally believed that FDI is a major catalyst for economic development and even sustainable economic growth. Besides providing finance and avenues for employment generation, FDI has the potentials to induce positive spillovers that arise from international trade integration, such as technology transfer, productivity gains, introduction of new production processes and managerial skills, thus stimulating economic growth and poverty alleviation (OECD, 2002). As FDI flows grew in volume and complexity in the 1990s and early 2000s, threenew players appeared on the global stage: They are: sovereign wealth funds (SWFs), which were government - controlled entities with the authority to take significant equity stakes in foreign firms; private equity (PE) firms, which resorted increasingly to cross-border acquisitions, and emerging – market multinational enterprises (EMNEs), which ratcheted up their overseas acquisitions and investments.

Sustainable Economic Growth

Growth is said to occur in an economy when real output increases over time. Real output is determined by Gross Domestic Product GDP at constant prices such that the effect of price variations on the value of national output is removed. Sustainable economic growth is taken to mean the rate of growth which can be maintained without generating other significant economic problems, especially for generations yet to come (Aganyan, 2020). Clearly, there is a trade-off between today's rapid economic growth, and growth in the future. Rapid economic growth today tends to exhaust resources and may create environmental issues for generations yet unborn.

Sustained growth involves increase in productivity. It may be argued that growth based on short-term public debt, rather than long-term productivity is unsustainable – hence worries about the build-up of debt in Nigeria and other sub Saharan African countries.

Theoretical Literature Review

Neo classical Macroeconomic Theory

A number of theories have explained why firms are engaged in transnational development via FDI. The neoclassical macroeconomic theory was the earliest of these theoretical assertions, up until the 1960s, it was the prevailing theory used to explain how inflows of FDI occurred (Dunning, 1993; Adeleyeet al., 2017). The neoclassical macroeconomic theory believes that the flow of investments triggered by differences in the rate of interest among economies. Capital is a tradable commodity from the perspective of this neo-classical theory. The price determines its demand, supply, and allocation. Aggarwal, 1980 and Mankiw, 2015 notes that the rate of interest influences the flow of capital. Consequently, under perfect competition, capital would flow freely from low-return countries to those with relatively high return rates. The major disadvantage of this theory is its failure to understand the responsibility of TNCs in the inflow of investment. Since it is limited to understanding the means and location that the companies resolve to procure the resources required to finance their overall strategy, experts also argue about the silence on capital intention. It could be for managerial influence or the capacity of production. Recently, their responsibility is, therefore, only appropriate for justifying portfolio investments rather than FDI. The approach to intangible capital is another theory of FDI. In line with this theory, the influence of certain ‘monopolybenefits ‘orthose assets that are not tangible’ for a company is imperative for itsproduction from foreign countries (Lall, 1980; Bajrami andZeqiri, 2019). The benefits could have comprised of productionprocedures, industrial management, managerial skills, productknowledge, and factor of production markets. The theoryhighlights three (3) essential functions to support such anadvantage. First, these benefits must be provided to the companyconcerned with a competitive edge and probably outweigh theforeign competitors, like those in the potential country, it is planning to invest. Secondly, the company’s monopolisticadvantage must be transferable internationally and effectively at international locality. Finally, the organizations on its own should use these tools rather than renting or selling them to an independent company. Rugman (1986) suggested another interpretation based on internalization theory. This theory explored FDI from the perspective of the requirement to adopt the cost of transactions to increase profit and describes the rise of foreign investment performance (Banga, 2003; Vasyechko, 2012).

Second Best Theory of Institutional Quality

This theory was formalized by Lipsey and Lancaster in 1956. The theory notes that if we are away from the optimal conditions on more than one dimension, getting close to some, but not all of them

is not necessarily beneficial. Put differently, the second best theory of institutional quality states that "in the presence of constraints, that prevent the attainment of the optimum, satisfying a larger number of optimization conditions is not guaranteed to be superior to a situation in which fewer requirements are fulfilled (Molinari, 2013). This theory has been applied to many situations where the constraints to the attainment of the first best were of economic nature.This theory notes that the two major deficiencies of institutional quality of a nation which could interfere with public sector decision process are the presence of corruption and lack of an adequate system of public governance.

Empirical Literature Review

Institutional Quality and Sustainable Economic Growth.

Under this section, the author examined literatures on the nexus between institutional quality and sustainable economic growth on the local, continental and global scenes.Dandume (2013) examined institutional quality and economic growth performance in Nigeria using the ARDL, co - integration and Causality approach. Findings indicate that corruption has positive effect on economic growth while accountability, Rule of law, competitive politics were not significant to economic performance. In addition, findings from Granger Causality test reveal that institution and economic growth granger cause each other.In a Dynamic Panel Data Analysis, Kilishi, Mobolaji, Yaru and Yakubu (2013) using Blundell-Bond System Generalized Method of Moment (GMM) estimators found that quality of institutions proxy with regulatory framework and government effectiveness have significant impact on economic performance n sub-Saharan Africa. Alexiou, Tsaliki and Osman (2014) analyzed institutional quality and economic growth in the Sudanese economy 1972 - 2008. Using the ARDL bounds testing approach to cointegration proposed by Pesaran et al. (2001), the result indicates that the institutional quality environment proxy by political freedom index exerts a negative effect on the economic prosperity.In Nigeria, Yusuf and Malarvizhi, (2014) assessed institutional qualities and Nigeria's economic growth performance. Using the ARDL model approach to co integration and Causality, the study found that sustainable improvement in good institutions is associated with rising growth and per capita income. Findings of this study indicate that there is a reverse causality.Yildirim and Gokalp (2016) in an analysis of Turkey institutions and economic performance: a review on the developing countries. Using Panel Data Analysis' on 2000-2011 data, finding shows that institutional indicators such as the integrity of the law system, regulations on trade barriers, restriction of foreign investments, the share of the private sector in the banking system have a positive effect on the macro-economic performance. Judiciary independence, government expenditures, transfers and subsidies, civil freedoms, the black market exchange rate, collective bargaining and political stability have negative impact on the macro-economic performances.Iheonu, Ihedimma and Onwuanaku, (2017) in a studyascertained the effect of institutional quality on economic performance in West Africa. The study using a Panel data set of 1996 to 2015, found that control

of corruption, government effectiveness, regulatory quality and rule of law have positive and significant impact on economic performance in West Africa.Nguyen, Su, and Nguyen (2018) analyzed the relationship between institutional quality and economic growth in emerging economies. Using System Generalized Method of Moments (SGMM) on data from 2002-2015, the study found significant positive impacts of institutional quality on economic growth. The study also found that institutional quality has negative effects on foreign direct investments (FDIs) and trade openness. On the continental level, Epaphra and Kombe (2018), investigatedthe effect of institutions on economic growth in Africa. The study used Generalized Methods of Moment (GMM), Fixed Effects (FE) and Random Effects (RE) models on data from 1996-2016. They found that Institutional quality indicators - political stability appears to be the most significant factor in explaining real GDP per capita growth in Africa.Radzeviča and Bulderberga (2018) examined the role of institutional quality in economic growth of Baltic States. Using Generalized Method of Moments on a panel of 113 countries during 2006 -2016. They found that government effectiveness, regulatory quality, tax burden, monetary freedom, financial freedom, trade freedom, strength of auditing and reporting standards, efficacy of corporate boards, and strength of investor protection has positive effect on economic growth.

FDI and Sustainable Economic Growth.

Under this section, the author examined literatures on the nexus between foreign and sustainable economic growth on the local, continental and global scenes.In Nigeria, the performance of the FDI has been poor; this is as a result of the weak macroeconomic framework in Nigeria. The success of foreign investments in the country mainly is determined by the market size, human capital, and stable macroeconomic environment, and influenced largely by the pull factor and the push factors. FDI has a positive influence on output, but not significant, suggesting the poor performance of FDI on economic growth in Nigeria. Akanegbu & Chizea, (2017), notes that the country's share of the global FDI is an insignificant percentage regardless of the various reforms. Using annual time series data from 1991-2014, and the neoclassical production function (whereby FDI, capital and labour are all taken as production inputs), the study employed the Ordinary Least Square estimation technique to determine the impact of FDI on economic growth in Nigeria, the result indicates a positive but insignificant impact of FDI on output productivity in Nigeria.In a more recent study by Anetor(2019) found that FDI accounts for the significant variation inNigeria economic growth compared to other capital inflow into the country. Using the Structural Vector Autoregression model (SVAR) on quarterly data from 1961-2016 to evaluate the effects of shocks of private capital inflow on the growth of the Nigerian economy, the result indicates that shocks of FDI and portfolio investment inflow have a positive and direct relationship on economic growth Nigeria and is statistically significant. More empirical evidence reveals a positive relationship between FDI and output productivity in Nigeria. (Akiri, Vehe, & Ijuo, 2016) contributed to the debate using secondary data for the period 1981-2014 and result from the VECM shows a significant positive effect of FDI on economic growth in Nigeria. In Cambodia, FDI also enhances

economic growth, a study by (Sokang, 2018), utilized annual time series data between 2006-2016, analysed using correlation matrix and multiple regression to investigate the impact of FDI on economic growth in Cambodia, the result shows a positive relationship. The same result was achieved in Pakistan by Gudaro, Chhapra, & Sheikh (2012) for the period 1981-2010 using time series data, and the multiple regression techniques. According to Melynk, Kubatko, & Pysarenko (2014), there is also a positive impact of FDI on economic growth in the communism transition countries, using panel data on annual transition report indicators from 1998-2010, analysed using the Fixed-Effects estimation to analyse the data. FDI stimulates growth in the long run, although it exhibits a negative impact on economicgrowth in the short run in some selected developing countries under review. Testing the impact of FDI on both short run and long run economic growth in developing countries, Trang, Duc, Anh, & Thang(2019), used VECM, and Fully ModifiedOLS (FMOLS) to analyse both the short and long run impact of FDI on economic growth in developing countries (lower-middle) income group for the period 2000-2014. In Portugal, there is some convergence among the trading partners and the country. Leitao & Rasekhi, 2013 using panel data, found that FDI and bilateral trade enhance economic growth.Ojewumi and Akinlo (2017) reveal that FDI could adversely affect a recipient economy's growth prospects. Large reverse flows such as profit remittances especially transferred resources through transfer prices and dividends orwhere the host country receives significant or other concessions from transnational corporations (TNCs).Meanwhile, a study carried out by Umeora, 2011, shows that FDI does not conform to the a-priori and theoretical expectation of a positive relationship between FDI and economic growth. Using secondary data from 1986 – 2011 and a model which was regressed using the OLS and multiple regression techniques, it was concluded that in Nigeria, there is a negative impact of FDI on economic growth. This is contrary to the findings of others studies.

Institutional Quality, FDI and Sustainable Economic Growth.

Osabohien (2020)*et al* examined the nexus between institutional quality, FDI and economic development in SSA countries. Using the fixed and random effects methodology on pooled data for some selected SSA countries, the paper found that quality of institutions is a determining factor as it affects the inflow of FDI in host economies and that FDI is crucial for economic development. They recommend that government of the host economies need to consider the degree of institutional quality in other to encourage further FDI inflows. Wang (2021)*et al*ascertained the effect of institutional quality, FDI on economic growth and environmental quality in some selected African countries. The study adopting the fully modified OLS method and VECM examined the nexus between institutional quality, FDI and economic growth and environmental quality on annual data from 1999 – 2017 for oil producing and non – oil African countries. The paper found that institutional quality significantly enhanced economic growth and environmental quality in the non-oil producing countries and only improved environmental quality and no significant impact on economic growth in oil producing countries. FDI significantly promoted economic growth in oil producing countries than in non – oil producing countries but presented no significant impact

on environmental quality in both groups. To promote sustainable development therefore, the paper recommends good governance and sound policy measures to promote economic growth and realize high environmental quality.From the literature review, it is evident that previous study in this area focused oninstitutional quality andeconomic growth; institutional quality and FDI; or institutional quality, FDI and economic development. There seem to be limited attention on the nexus between institutional quality, FDI and sustainable economic growth. This however, justifies the need for a study on the relationship between institutional quality, FDI and sustainable economic growth in African emerging economies.

RESEARCH METHODS

Theoretical Framework and Model Specification

This paper adopts the basic Solow growth model which gives the growth rate of output or income as depending on the growth rate of technical change, labour/population and capital stock. This relationship can be presented in the mathematical relation as shown below.

$$Y = f(a, k, L) \quad (1)$$

Where; a is level of technology
K is stock of capital
L is quantity of labour
Y is Output

Generally in the Solow growth model, stock of capital comprises of investment components – FDI, Domestic savings etc. The empirical model for this paper is similar to that of Ejemeyovwi et al (2018) and Osabohien et al 2020 though with a little modification. The functional form of the model is therefore stated below;

$$gdppc = f(fdi, dominv, cpi, polstab, exr) \quad (2)$$

Rescaling GDP per capita and official exchange rate using their logarithmic forms because of their large values and re-specifying the model in its econometric form yields equation (3) given below:

$$ln\_gdppc = a_0 + a_1 fdi + a_2 dominv + a_3 cpi + a_4 polstab + a_5 ln\_exr + e_1 \quad (3)$$

From equation 3 above, GDPPC is per capita gross domestic product which is the dependent variable is used to proxy for sustainable economic growth. FDI is foreign direct investment, DOMINV is domestic investment, CPI and POLSTAB represents corruption perception index and political stability respectively. Ogbuabor et al (2020) notes that a number of institutional factors play crucial roles in the economic growth process of most nations. These factors are rule of law RoL, Corruption perception Index CPI, degree of political stability etc. EXR is official exchange

rate in each country, while *e* is the stochastic error term. The study aims at examining how an excellent institutional framework will bring about a permissive condition for the inflows of foreign capital, which will invariably lead to sustainable economic growth for the African emerging economies.

The major justification for the selection of variables is based on the fact that for sustainable economic growth to be attained in the African continent, institutional framework, investment components (FDI inflows and local investments), and exchange rate should be present in the model. It is the gap in literature that this study aimed at filling.The 'a priori' expectation of the variables of the model holds that their respective coefficients should have a significant effect on economic growth proxy with GDPPC. It merely implies that an increase in investment components and quality of institutions could explain the tangible and substantial rise in economic growth.

Since the study employs panel of eight (8) countries, the study adopts the panel data analysis. The study applies the fixed effect model or the random effect model, depending on the preferred model which shall be selected by the Hausman test. Hence, the fixed effect model can be specified as given in equation (4) below:

$$Y_{it} = b_i + \lambda' X_{it} + \mu_{it} \quad (4)$$

where i= 1……N; t=1……T

Y_t is the dependent variables (in this case, GDPPC) while X_t is the vector of k explanatory variables such as: foreign direct investment (FDI), domestic investment (DOMINV), corruption perception index (CPI), and political stability (POLSTAB). b_i= 1….N are constant coefficients specific to each emerging African economy. Their presence assumes that differences across the considered emerging African economies appear by means of differences in the constant term. These individual coefficients are estimated together with the vector of coefficients, λ', and $\mu_{it}$is the residual term. However, the random effect model can be seen in equation (5) below:

$$Y_{it} = \lambda' X_{it} + \mu_{it} \quad (5)$$

Where the variables remained as defined above under the fixed effect model. The difference is the absence of the constant coefficients (b_i) specific to each emerging African economy.
The Hausman test which will be conducted to select the preferred model (fixed or random) specifications. Under the null hypothesis, the Hausman statistic is asymptotically distributed as chi-square with k degrees of freedom and it is specified as:

$$H = \left(\hat{\beta}_{GLS} - \hat{\beta}_F\right)' \left(\hat{V}\left(\hat{\beta}_{GLS}\right)\right)^{-1} \left(\hat{\beta}_{GLS} - \hat{\beta}_F\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

where $\hat{\beta}_F$ and $\hat{\beta}_{GLS}$ are, respectively, the estimates of the fixed effects and random effects models. $\hat{V}(.)$ are the corresponding variance-covariance matrices of the estimated coefficients. The hypothesis is if Prob>chi2 is < 0.05 or significant, adopt the fixed effect model otherwise, apply the random effect model

DESCRIPTION OF THE VARIABLES OF THE MODEL

DATA	IDENTIFIER	SOURCE	DEFINITION	MEASUREMENT
Per capita gross domestic product	GDPPC	WDI	GDP divided by the population to express it in per capita terms.	% growth rate of GDP
Foreign direct investment	FDI	WDI	Foreign direct investment, net inflows	% GDP
Domestic Investment	DOMINV	WDI	Gross fixed capital formation is a marginal investment. It is an element of the expenditure procedure of computing GDP	% GDP
Corruption perception index	CPI	WGI	Assessment of corruption.	Estimates
Political stability	POLSTAB	WGI	Political stability and absence of violence/terrorism capture assessments of the probability of political instability inspired violence and terrorism	Estimates
Official Exchange Rate	EXR	WDI	The rate at which goods and services are exchanged between the domestic economy and the outside world.	Nominal exchange rate.

Source: Author's compilation, 2023.

The estimation procedure began with a descriptive statistics test of the variables of the model. Thereafter, the model was estimated using the fixed and random effects regression model for the

sample of 8 African emerging economies between 1990 and 2020. The Hausman test was conducted to ascertain suitability between using fixed effects and random effect regression models

Empirical Analysis

Descriptive Statistics of the Model Variables

This study examined the descriptive statistics of the model variables as shown in the table 4.1, with the main aim of showcasing the data characteristics and nature of the variables in the model. Thus, this would help the study determine if there exist sufficient variations in the values of the variables of the model. Therefore, the study examines the mean, standard deviation, and minimum and maximum values of the model variables in this respect. In line with the above assertion, the summary statistics of the model variables are given in table 4.1 as shown below:

Table 4.1: Summary Statistics Results of the Model Variables

Variable	Mean	Std. Dev.	Min	Max	Observations
ln_gdppcoverall	6.662321	.9815095	5.036589	9.021576	N = 248
Between		.8135433	5.925784	8.473149	n = 8
Within		.6179766	5.271209	7.798606	T = 31
fdioverall	3.665922	5.090816	-6.89768	39.4562	N = 248
Between		3.000831	.9550066	10.4042	n = 8
Within		4.243247	-6.119027	32.71792	T = 31
dominv overall	26.10963	9.192735	8.763097	53.98798	N = 248
Between		4.934208	18.70761	32.32074	n = 8
Within		7.944622	8.161865	50.58146	T = 31
cpioverall	-.4876543	.6156441	-1.431231	1.216737	N = 200
Between		.6374634	-1.111888	.9008894	n = 8
Within		.1471949	-.8069971	.0405752	T = 25
polstaboverall	-.3941713	.8634446	-2.211123	1.111055	N = 200
Between		.8610061	-1.675316	1.023038	n = 8
Within		.3059608	-1.461011	.7534149	T = 25
ln_exroverall	3.522627	2.789276	-3.496967	8.223377	N = 248
Between		2.781257	-.3988705	7.483827	n = 8
Within		.9920627	-.928771	5.643497	T = 31

Source: Author's computation from available data using STATA 13, 2023

The output results of the summary statistics shown in Table 4.1 reveals that all the model variables exhibited sufficient within-panel variation to serve as the variables' instruments given the large values of their standard deviation. Therefore, the instruments are likely all correlated with the unobserved individual random effect to identify the coefficients on sustainable economic growth in emerging African economies. In addition to the above, the summary statistics results also indicate that all the model variables have sufficient variations in their mean, standard deviations, and the associated minimum and maximum values.

Table 4.1 further shows that the overall number of observation (N) in the panel for the study is 248, the between group panel (n) is 8 (that is, the number of countries used in the study), while the within panels (T) are 31 (that is the number of time series for each country, from 1990 - 2020). The mean score for sustainableeconomic growth in emerging African economies (ln_GDPPC) is about 6.662321, foreign direct investment (FDI) is about 3.665922, domestic investment (DOMINV) is about 26.10963, corruption perception index (CPI) is about -.4876543, political stability (POLSTAB) is about -.3941713, while that of exchange rate (ln_EXR) is about 3.522627. The data for the study is an unbalanced panel. This is because, for some variables like the corruption perception index (CPI) and political stability (POLSTAB), the overall number of observation (N) showed that it is 200 this is due to the fact that the data started from 1996 to 2020. However, for other variables, overall number of observation (N) in the panel for the study maintained 248 all through. The study went further to examine pre-estimation tests such as the unit root. Thisis presented in the subsection that follows as given below:

Panel Unit Root Test

The study also applied the Fisher-type panel unit-root test based on Augmented Dickey-Fuller (ADF) test of unit root to examine the stationarity of the model's five variables. The null hypothesis of the Fisher ADF panel unit-root test is that all panels contain a unit root. With regard to the alternative hypothesis, as N tends to infinity, the number of panels that do not have unit root need to grow at the same rate as N. The results of the panel unit root test of the model variables are presented summarily in table 4.2 below (see Appendix for full print out):

Table 4.2: Summary Results of Panel Unit Root Test

Variables	Inverse chi-squared P	Inverse normal Z	Inverse logit L*	Modified inv. chi-squared Pm	p-values	Order of Integration
ln_GDPPC	145.3284	-10.4175	-14.3314	22.8623	0.0000	I(1)
FDI	91.1008	-7.3487	-8.9452	13.2761	0.0000	I(0)
DOMINV	72.5596	-5.9663	-7.0089	9.9984	0.0000	I(0)
CPI	89.8517	-7.4406	-8.8371	13.0553	0.0000	I(0)
POLSTAB	83.8473	-6.6295	-8.1387	11.9938	0.0000	I(0)
ln_EXR	126.1297	-9.0011	-12.4185	19.4684	0.0000	I(0)

Source: Author's computation from available data using STATA 13, 2023

The Fisher ADF panel unit-root test combines the p-values from the panel-specific unit-root tests using the four methods proposed by Choi (2001). Three of the methods are not the same in the way they utilise the inverse χ^2, inverse normal, or inverse logit transformation of p-values, and the fourth, which is a modification of the inverse χ^2 transformation, and which is suitable for when N tends to infinity. The inverse normal and inverse logit transformations can be used whether N tends to infinity or not.

Therefore, Table 4.2 indicates that the four Fisher ADFpanel unit root tests significantly reject the null hypothesis that all the panels contain unit roots. This is due to the fact that Table 4.2 revealed that the inverse logit L* test typically agrees with the inverse normal Z test. Again, the inverse χ^2 P test is also in consonance with the modified inverse χ^2 Pm test. The p-values of all the variables as shown in the table 4.2 above revealed that all the variable of the model such as, FDI, DOMINV, CPI, POLSTAB, and ln_EXRare significant at levels and as such, are integrated of order zero (that is; I (0)), except ln_GDPPCwhich isstationary at order one (that is; I (1)).

Presentation of the Panel Model

Toascertain the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies, this study examined both the fixed effect and random effect panel models. But in a bid to select the best model that would be adopted to ascertain the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies, the study applied the Hausman selection test. Table 4.3.1 therefore presents the summary results of fixed effect model, Table 4.3.2 presents that of random effect model, while Table 4.3.3 presents the Hausman test results as shown here under (see Appendix for the full results):

Table 4.3.1: Summary Results of Fixed Effect Model (Dependent Variable = ln_gdppc)

Variables	Coef.	Std. Err.	T	P>|t|
FDI	.0164758	.0068444	2.41	0.017
DOMINV	.0504521	.0040028	12.60	0.000
CPI	.5484253	.1838092	2.98	0.003
POLSTAB	.1999265	.0916532	2.18	0.030
ln_EXR	.7227628	.0476835	15.16	0.000
_cons	4.459564	.193001	23.11	0.000
sigma_u	2.0559551			
sigma_e	.36409665			
Rho	.96959151 (fraction of variance due to u_i)			

corr(u_i, Xb) = 0.8975, F test that all u_i=0: F(7, 187) = 74.92 Prob > F = 0.0000
Source: Author's computation from available data using STATA 13, 2021
Corr(u_i, Xb) indicate that errors, u_i are correlated with the regressors in the fixed effects model.

More so, the F-test indicates that all the coefficients in the model are different from zero. This is because, the probability of F, Prob > F = 0.0000, is < 0.05. Hence, the model is good and as a result, has a good fit. However, the intra-class correlation (rho) indicates that about 96.959% of the variances are due to differences across the selected countries in emerging African economies. Therefore, in order to choose the best model (fixed effect or random effect model) that ascertains the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies, the study also examined the random effect model before applying the Hausman selection test. Hence, the random effect model results shown as presented summarily in Table 4.3.2 below (see Appendix for the full results):

Table 4.3.2: Summary Results of Random Effect Model (Dependent Variable = ln_gdppc)

Variables	Coef.	Std. Err.	Z	P>|z|
FDI	.0203812	.0087781	2.32	0.020
DOMINV	.002352	.0051813	0.45	0.650
CPI	1.005675	.1977221	5.09	0.000
POLSTAB	.0972382	.1148239	0.85	0.397
ln_EXR	.3680593	.0463242	7.95	0.000
_cons	5.791355	.2426055	23.87	0.000
sigma_u	.307461			
sigma_e	.36409665			
Rho	.41626083 (fraction of variance due to u_i)			

corr(u_i, X) = 0, Wald chi2(5)=92.45, Prob > chi2= 0.0000
Source: Author's computation from available data using STATA 13, 2023

Table 4.3.2 indicates that the errors, u_i, are uncorrelated with the regressors, X, in the random effects model (i.e; corr(u_i, X) = 0). Furthermore, the Wald chi2 test shows that all the coefficients in the model are different from zero (i.e; Wald chi2(5) = 92.45 (see appendix) hence, suggesting that it is statistically significant). In addition, the probability of Chi2 is also less than 0.05 (i.e; Prob > chi2 = 0.0000< 0.05) hence, agreeing with the Wald chi2 test that it is statistically significant. This therefore confirms that the model is good and as a result, has a good fit. However, the intra-class correlation (rho) suggests that about 41.626% of the variances are due to differences across the selected countries in emerging African economies.What this study wants to achieve here is to present the fixed and random effect models and then, apply the Hausman test to choose the best model to be interpreted. Consequently, the study summarily presents the Hausman test as seen in Table 4.3.3 below (see Appendix for the full results)

Table 4.3.3: Summary Results of the Hausman Test

---- Coefficients ----				
Variables	**(b)**	**(B)**	**(b-B)**	**sqrt(diag(V_b-V_B))**
	Fixed	**Random**	**Difference**	**S.E.**
FDI	.0164758	.0203812	-.0039053	.0703267
DOMINV	.0504521	.002352	.0481001	.1860421
CPI	.5484253	1.005675	-.4572497	.0232723
POLSTAB	.1999265	.0972382	.1026884	.0507227
ln_EXR	.7227628	.3680593	.3547035	.0113043

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 104.19, Prob>chi2 = 0.0000
Source: Author's computation from available data using STATA 13, 2023

The Hausman test conducted on the two models as revealed in Table 4.3.3, it can be observed that Prob>chi2 is less than 0.05 (i.e. Prob>chi2 =0.0000< 0.05). This simply suggests that it is statistically significant. Thus, implying that the study should apply the fixed effect model as the best model that will be utilized in ascertaining the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies. In line with this finding, the fixed effect model is consistent and efficient under H_1; that the preferred model is fixed effect model. On this note, the study switches to the fixed effect model for the results interpretations and other tests.

The fixed effect model results presented in Table 4.3.1 show that when foreign direct investment(FDI) increases by USD1billion, sustainable economic growth in emerging African economies (ln_GDPPC) would rise significantly by about 1.64758 percent. This result is not surprising since it is expected that the more the inflows of foreign direct investment (FDI) in emerging African economies, the more positively and significantly sustainable economic growth

in emerging African economies (ln_GDPPC) would be. The implication of this result is that increased FDI inflows significantly favours sustainable economic growth in emerging African economies. The absolute value of the calculated t-value of foreign direct investment (FDI) is 2.41, which is greater than the tabulated t-value (1.96) (that is; 2.41 > 1.96), and the p-value is also less than 0.05 (that is; 0.017 < 0.05) hence, suggesting that it is statistically significant at 5% level of significancein ascertaining sustainable economic growth in emerging African economies.

Arise in domestic investment (DOMINV) by about USD1billion would bring about a significant rise in sustainable economic growth in emerging African economies (ln_GDPPC) by about 0.54521 percent. This result is also expected since any given rise in domestic investment (DOMINV) would as well bring about positive and significant sustainable economic growth in emerging African economies (ln_GDPPC). The implication of this result is that any rise in domestic investment (DOMINV) transcends to and reflects inthe economy by creating a multiplier effect on people's income, especially on the poor and the unemployed. This would no doubt significantly encourage sustainable economic growth in emerging African economies (ln_GDPPC). The absolute value of the calculated t-value of domestic investment (DOMINV) is 12.60, which is greater than the tabulated t-value (1.96) (that is; 12.60> 1.96), and the p-value is also less than 0.05 (that is; 0.000 < 0.05) thereby, revealing that it is statistically very significant in ascertaining sustainable economic growth in emerging African economies (ln_GDPPC) at 5% level of significancein ascertaining sustainable economic growth in emerging African economies. The results also revealed that when there is a rise and/or improvement in the control of corruption (CPI) by 1%, sustainable economic growth in emerging African economies (ln_GDPPC) would rise and/or improve very significantly by about 54.84253percent. This result is not surprising since it is expected that rise in corruption would definitely mar the growth sustainability of any economy but, with a rise or significant improvement in corruption control would significantly improve the growth sustainability of the said economy as well. The implication of this result is that a 1% improvement in the control of corruption (CPI) in emerging African economies significantly encourages the sustainability of economic growth in emerging African economies. This is because, every individual in these economies would be very conscious of the corrupt practices in the economy and strive harder to desist from anything that would implicate the person as being corrupt. The fear of facing the law of the land when found corrupt would make people to continue to engage in legal businesses the more thereby, avoiding illegal deals in the economy. This would actually sustain the growth of the economy the more, rather than engaging in illegal deals and stopping at some period when being caught up in the act (which is unsustainable). In another vein, with absence of corruption, nepotism, favouritisms, and proper implementation of policies and programmes in emerging African economies, the more sustainable the growth of the economy would be, since there would not be any need for any agitation, riots, among others in these economies. The absolute value of the calculated t-value ofthe control of corruption (CPI) is 2.98, which is greater than the tabulated t-value (1.96) (that is; 2.98> 1.96), whereas the p-value is at the

same time less than 0.05 (that is; 0.003 < 0.05) hence, indicating that it is statistically very significant at 5% level of significancein ascertaining sustainable economic growth in emerging African economies.

Again, whenever there is a 1% rise and/or improvement in political stability and absence of violence/terrorism (POLSTAB), the sustainability of economic growth in emerging African economieswould also rise and/or improve significantly by about 19.99265 percent. This result is also not surprising since it is expected that the more stable an economy is politically,and more there is absence of violence/terrorism, the more sustainable economic growth in that economy would be. The implication of this result is that significant improvement in political stability and absence of violence/terrorism (POLSTAB) would also transcend tocontrolled/ reduced corruption, absence of nepotism, favouritisms, and proper implementations of policies that do not translate to any marginalization of a sect or sects of people in the economy. This would no doubt bring about sustainable economic growth in emerging African economies. The absolute value of the calculated t-value of political stability and absence of violence/terrorism (POLSTAB) is 2.18, which is greater than the tabulated t-value (1.96) (that is; 2.18> 1.96), while that of the p-value is also less than 0.05 (that is; 0.030 < 0.05) thereby, suggesting that it is statistically very significant at 5% level of significance in ascertaining sustainable economic growth in emerging African economies.

The results also indicate that whenever exchange rate (ln_EXR) appreciates by 1%, sustainable economic growth in emerging African economies (ln_GDPPC) would improve significantly by about 72.27628 percent. This results is also expected since any appreciation of currencies make the economy's currency and/or economy stronger relative to other country's currencies and/or economies. However, when there is depreciation, it weakens a country's currency and the economy as well. The implication of this result is that in emerging African economies, the more the significant appreciation of currencies relative to other country currencies, the more significant sustainable economic growth in these economies would become. The absolute value of the calculated t-value of exchange rate (ln_EXR) is 15.16, which is greater than the tabulated t-value (1.96) (that is; 15.16> 1.96), while that of the p-value is less than 0.05 (that is; 0.000 < 0.05) thus, showing that it is statistically very significant at 5% level of significance in ascertaining sustainable economic growth in emerging African economies.

Controlling for the fixed effect characteristics of all the selected emerging African economies(_cons), the results show that there is a significant increase in sustainable economic growth in emerging African economies by about 445.9564 percent. The significant impact here is so high, implying that there may be a lot of favourable unobservable characteristics that may be fixed (such as improved quality of primary inputs, raw materials, intermediate products, cheap labour, rise in workforce, among others) in all the selected emerging African economies that significantly encourage sustainable economic growth in emerging African economies. The

absolute value of the calculated t-value ofconstant term (_cons) is 23.11, which is greater than the tabulated t-value (1.96) (that is; 23.11 > 1.96), while the p-value is also less than 0.05 (that is; 0.000 < 0.05) thereby, revealing that it is statistically significant at 5% level of significance in ascertaining sustainable economic growth in emerging African economies.

The Breusch-Pagan Lagrangian Multiplier Test for Random Effects

This study went further to conduct the Breusch-Pagan Lagrange multiplier (LM) test in order to examine if any random effects exists in the model. If any random effect exists, then the random effect model is a better effectthat needs to be adopted in a bid to ascertain the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies, otherwise, the fixed effect model is preferred. This test is conducted in order to further buttress the reason why the fixed effect model was the preferred model for the study. The null hypothesis in the LM test is that variance across entities (emerging African economies) is zero. That is, no significant difference across countries (emerging African economies) (i.e. no panel effect). The decision rule is; If Prob > chibar2 is < 0.05, reject the null and conclude that a random effect is the preferred model. The Breusch-Pagan Lagrange multiplier (LM) test is given in the table below (see Appendix for the full results):

Table 4.4: Summary Results of the Breusch-Pagan Lagrangian Multiplier Test for Random Effects

Variables	Var	sd = sqrt(Var)
ln_gdppc	.8595519	.9271202
E	.1325664	.3640967
U	.0945323	.307461

chibar2(01) = 2.30, Prob > chibar2 = 0.1300

Source: Author's computation from available data using STATA 13, 2023

Table 4.4 shows that the Prob > chibar2 is 0.1300 > 0.05. Consequently, the study rejects the null hypothesis and concludes that the random effect model is inappropriate for the study. This however implies that there is no evidence of significant differences across the selected emerging African economies therefore, adopting the random effect model would lead to biased estimates and the results would no longer be BLUE. This makes the fixed effect model to be more preferred.

Testing for Cross-Sectional Dependence/Contemporaneous Correlation: Using Breusch-Pagan LM Test of Independence

The study also examined if there is cross-sectional dependence/contemporaneous correlation in the model. The Breusch-Pagan LM Test of Independence was adopted. This is because cross-sectional dependence pose a lot of challenge to macro panels with long time series. The null hypothesis here is that there is no correlation across the residuals of the entities (i.e. the selected

emerging African economies). Thus, the correlation matrix of residuals of the selected emerging African economies can be seen as presented in table 4.5 below:

Table 4.5: Correlation matrix of residuals

	__e_1	__e_2	__e_3	__e_4	__e_4	__e_5	__e_5	__e_8
__e1	1.0000							
__e2	0.3485	1.0000						
__e3	0.6380	0.2648	1.0000					
__e4	-0.0302	0.4158	-0.2616	1.0000				
__e5	0.6225	0.4977	0.6118	0.1580	1.0000			
__e6	0.3377	-0.0710	0.6067	-0.0232	0.3874	1.0000		
__e7	0.6576	0.3438	0.8219	-0.1443	0.7774	0.6246	1.0000	
__e8	0.6680	0.6549	0.5858	0.1792	0.8177	0.1677	0.6788	1.0000

Breusch-Pagan LM test of independence: chi2(28) = 17.062, Pr = 0.2143
Source: Author's computation from available data using STATA 13, 2023

It can be observed in table 4.5 above that the Pr = 0.2143 > 0.05, thereby, showing that there is no cross-sectional dependence. In table 4.5, __e_1, __e_2, __e_3, __e_4, __e_5, __e_6, __e_7, and __$e_8$represent the residuals of the selected emerging African economies in this order; Botswana, Ghana, Kenya, Mozambique, Nigeria, Tanzania, Uganda, and Zambia.

Heteroskedasticity Test

The presence of heteroskedasticity was also examined by the study. The study applied the Modified Wald test for group-wise heteroskedasticity in fixed effect regression model. The null hypothesis is homoskedasticity or constant variance (that is; H_0: sigma(i)^2 = sigma^2 for all i). The heteroskedasticity test results show that the Prob>chi2 = 0.0000< 0.05. Hence, making the study to reject the null hypothesis and concludes that there is presence of heteroskedasticity, which is always expected in any panel data analysis (see Appendix for the full results). However, the presence of heteroskedasticity in panel data analysis is not really a problem since this was corrected using Huber/White or sandwich estimators' option in the fixed effect model to obtain heteroskedasticity-robust standard errors.

Evaluation of Working Hypotheses

The working hypotheses one of this study is evaluated based on the findings of the fixed effect model which was adopted to ascertain the impact of institutional quality and foreign direct investment on sustainable economic growth in emerging African economies. Hence, given the null hypothesis that institutional quality and foreign direct investment have no significant impact on sustainable economic growth in emerging African economies, the study therefore rejects the null hypothesis, and concludes that institutional quality (measured by corruption perception index or control of

corruption – CPI, and political stability – POLSTAB), and foreign direct investment (FDI) have positive significant impact on sustainable economic growth in emerging African economies.

Therefore, implication of this result is that when there is a rise and/or improvement in the control of corruption (CPI) by 1%, sustainable economic growth in emerging African economies (ln_GDPPC) would rise and/or improve very significantly by about 54.84253%.Again, whenever there is a 1% rise and/or improvement in political stability and absence of violence/terrorism (POLSTAB), the sustainability of economic growth in emerging African economies would also rise and/or improve significantly by about 19.99265%. Lastly, when foreign direct investment (FDI) increases by USD1billion, sustainable economic growth in emerging African economies (ln_GDPPC) would rise significantly by about 1.64758%.

SUMMARY, CONCLUSION AND POLICY RECOMMENDATION

Summary of Findings

This study examined institutional quality, foreign direct investment and sustainable growth in emerging African economies, using panel data that span from 1990 to 2020. The study adopted the fixed effect model, which was preferred against the random effect model based on the Hausman test conducted on the models. The descriptive statistics revealed that all the model variables exhibited sufficient within-panel variation to serve as the variables' instruments given the large values of their standard deviation. The panel unit root tests conducted on the model variables revealed that all the variable of the model such as, FDI, DOMINV, CPI, POLSTAB, and ln_EXR are significant at levels and as such, are integrated of order zero (that is; I (0)), except ln_GDPPC which is stationary at order one (that is; I (1)) as shown by the p-values of the variables.

The panel fixed effect result showed that institutional quality (measured by corruption perception index or control of corruption – CPI, and political stability – POLSTAB), and foreign direct investment (FDI) have positive significant impact on sustainable economic growth in emerging African economies. Therefore, implication of this result is that when there is a rise and/or improvement in the control of corruption (CPI) by 1%, sustainable economic growth in emerging African economies (ln_GDPPC) would rise and/or improve very significantly by about 54.84253%.Again, whenever there is a 1% rise and/or improvement in political stability and absence of violence/terrorism (POLSTAB), the sustainability of economic growth in emerging African economies would also rise and/or improve significantly by about 19.99265%. Lastly, when foreign direct investment (FDI) increases by USD1billion, sustainable economic growth in emerging African economies (ln_GDPPC) would rise significantly by about 1.64758%.

Regarding the control variables in the model, domestic investment (DOMINV) has positive and statistically very significant impact on sustainable economic growth in emerging African economies.

Hence, a rise in domestic investment (DOMINV) by about USD1billion would bring about a significant rise in sustainable economic growth in emerging African economies (ln_GDPPC) by about 0.54521%. Again, for exchange rate, the results also indicated that it has positive and statistically very significant impact on sustainable economic growth in emerging African economies thereby, suggesting that whenever exchange rate (ln_EXR) appreciates by 1%, sustainable economic growth in emerging African economies (ln_GDPPC) would improve significantly by about 72.27628%.

The study further carried out some post-estimation tests and the results show that Breusch-Pagan Lagrangian Multiplier test for random effects suggested that random effect model is inappropriate for the study hence, agreeing with the Hausman test that the fixed effect model is the best model for the study. Moreover, the cross-sectional dependence/contemporaneous correlation test conducted on the model, using the Breusch-Pagan LM test of independence also revealed that there is no cross-sectional dependence. The Modified Wald test for group-wise heteroskedasticity carried out in the fixed effect model indicated that there is presence of heteroskedasticity, which is always expected in any panel data analysis. However, the presence of heteroskedasticity in panel data analysis is not really a problem since this was corrected using Huber/White or sandwich estimators' option in the fixed effect model to obtain heteroskedasticity-robust standard errors.

Conclusion

The study examined institutional quality, foreign direct investment and sustainable growth in emerging African economies and adopted the fixed effect model on a panel data, spanning from 1990 to 2020, and generated from eight (8) selected emerging African economies. Going by the fact that the fixed effect model was preferred against the random effect model based on the Hausman test conducted on the models, the study concluded that institutional quality (measured by corruption perception index or control of corruption – CPI, and political stability – POLSTAB), and foreign direct investment (FDI) have positive significant impact on sustainable economic growth in emerging African economies. Hence, whenever there is a rise and/or improvement in the control of corruption (CPI) by 1%, sustainable economic growth in emerging African economies (ln_gdppc) would rise and/or improve very significantly by about 54.84253%.Again, whenever there is a 1% rise and/or improvement in political stability and absence of violence/terrorism (POLSTAB), the sustainability of economic growth in emerging African economies would also rise and/or improve significantly by about 19.99265%.And finally, whenever foreign direct investment (FDI) increases by USD1billion, sustainable economic growth in emerging African economies (ln_gdppc) would rise significantly by about 1.64758%.

Policy Recommendations

The recommendations of this study are based on the study's findings. Consequently, the following are the recommendations as put forward by the study given the findings:

1. Since foreign direct investment has significant positive impact on sustainable economic growth in emerging African economies, governments of African emerging economies need to create more conducive environment that would allow increased FDI inflows in all sectors of the economy. This would further encourage sustainable economic growth in emerging African economies.
2. Domestic investment was also found to have positive significant impact on sustainable economic growth in emerging African economies, hence governments of African emerging economies should strive harder to encourage ease of doing business in order to enhance domestic investment the more. This can be done through the increased provision of infrastructure, reduction in taxes, electricity bills, and other investment regulations that limit domestic investments.
3. Increased improvement in the control of corruption was also found to have positive significant influence on sustainable economic growth in emerging African economies, hence, governments of these emerging African economies and its agencies involved in corruption control should strive more to bring corruption to its barest minimum. There should be increased accountability at all levels, no marginalization, favouritism, nepotism, among others. Efforts of the government should not be geared towards making any sector sects of people to feel better than others within the emerging economies of Africa. This will thwart any effort geared agitation, riots, terrorism, banditry, among other vices when everybody feel treated the same way.
4. Again, political stability and absence of violence/terrorism have positive significant impact on the sustainability of economic growth in emerging African economies, therefore, governments in emerging African economies need to encourage democracy, rule of law, justice, and discourage all efforts geared towards instability in the emerging economies of Africa. Shun every act of marginalization, favouritism, nepotism, political thuggery and violence, among others.
5. Exchange rate appreciation was further found to have positive significant impact on sustainable economic growth in emerging African economies thus, governments of emerging African economies need to make exchange rate more stable in order to encourage more domestic and foreign investments, and more significant sustainable economic growth.

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