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IMPACT OF CORRUPTION ON ECONOMIC GROWTH IN NIGERIA

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Abstract

The study examined the impact of corruption on economic growth in Nigeria for the period of 1996-2023. The study utilizes secondary sources of data extracted from the Central Bank of Nigeria annual statistics bulletin. The study undertakes unit root test employing augmented Dickey-Fuller (ADF) method to determine whether the variables are stationary or not and the result shows that the variables are all stationary. The study employed co-integration test and the results shows that there is evidence of long run relationship among variables; the study employed the generalized linear model for estimation. The findings showed that petty corruption (PTC) has positive and statistically significant impact on gross domestic product in Nigeria during the period under study, similarly the findings showed that grand corruption (GRC), has negative and statistically insignificant impact on gross domestic product in Nigeria during the period under review and furthermore the findings showed that money laundering (MOL) has negative and statistically insignificant impact on gross domestic product in Nigeria during the period of investigation. Furthermore, the findings showed that bribery corruption (BRB) has negative and statistically insignificant impact on gross domestic product in Nigeria during the period of investigation. Therefore, the study found that corruption generally has negative influence on gross domestic product in Nigeria during the period of the study. The study recommends that government should enhance the rule of law, transparency, and accountability within institutions. This includes promoting an independent judiciary, effective law enforcement agencies, and robust anti-corruption mechanisms to combat petty corruption in Nigeria. Government should strengthen Anti-Corruption institutions; enhance the capacity, independence, and effectiveness of anti-corruption agencies such as the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Other Related Offences Commission (ICPC). Provide them with adequate resources, training, and legal authority to investigate and prosecute grand corruption cases in Nigeria.

Keywords: Petty Corruption, Grand Corruption, Money Laundering, Bribery, Economic Growth

1. Introduction

Corruption is a global problem, and no country of the world is totally free of its menacing grip (Chimakonam, 2011). It has been seen as a structural problem of political, economic, cultural and an individual's malaise (Akor, 2014). It has affected many countries all over the world, especially developing countries (Nageri, Umar, & Abdul, 2013). It is found not only in democratic and dictatorial societies but also in feudal, capitalist and socialist economies. Christian, Muslim, Hindu and Bhuddist cultures among others are equally bedeviled by corruption (Dike, 2005). Corruption exists in the public and private sectors, profit and nonprofit as well as charitable organizations. It subsists both in developing and developed nations but is predominant in developing countries; hence, it remains a symptom of a poorly functioning nation. Although corruption is a global issue, it is a recurring issue in the Nigerian discourse. It is a significant obstacle to businesses in Nigeria, as companies are very likely to encounter bribery and other corrupt practices.

Thus, corruption inhibits economic growth and affects business operations, employment and investments (Šumah, 2018). Corruption affect economic development in terms of economic efficiency and growth, it also affects equitable distribution of resources across the population, increasing income inequalities with a much skewed income distribution, undermining the effectiveness of social welfare programmes, and weakening effective demand in an economy and ultimately resulting in

lower levels of investment, trade flows, government effectiveness, and generally human development. This, in turn, may undermine long-term sustainable development, economic growth and equality (Transparency International, 2014). According to Transparency International (2014), corruption has a direct impact on economic growth and development and indirect effects on a country's economic performance by affecting many factors fueling economic growth, such as investment, taxation, composition and effectiveness of public expenditure. (Ugur & Dasgupta, 2011) posit that corruption has indirect effects through transmission channels such as investment, human capital and public finance/expenditure.

Studies have long identified a number of channels through which corruption may affect economic growth (Mauro, 1995; Tanzi, 1997; Gupta, Davoodi & Alonso-Terme, 2002; Gyimah-Brempong, 2002). They have argued that corruption distorts incentives and market forces, leading to misallocation of resources; diverts talent and resources, including human resources, toward "lucrative" rent-seeking activities; acts as an inefficient tax on business, ultimately raising production costs and reducing the profitability of investments; decreases the productivity of investments by reducing the quality of resources; and creates inefficiencies, fuelling waste of resources and undermining the efficiency of public expenditure (Transparency International, 2014).

However, the level of economic growth is the priority of every nation. It occurs when a society becomes more productive and is able to produce more goods and services without misuse and misappropriation of resources. Nigerian macroeconomic performance over the last four decades can be described as being chequered (Lawal & Ijirshar, 2015). This is because an average annual GDP per capita growth of 2.81% was recorded between 1961 and 1970 and 2.11% between 1971 and 1980. While the country has remained one of the most corrupt countries, the rate of economic growth decreased drastically to -3.12% between 1981 and 1990 and -0.16% between 1991 and 2000, depicting negative growth for the economy. The growth, however, improved significantly between 2001 and 2010, leaving an average GDP per capita growth at 7.95% and 2.5% in 2011, which suddenly declined to -0.4% in 2019. The GDP per capita growth further declined to -4.3% in 2020 (World Bank, 2022).

The consequences of these corrupt practices on economic growth in Nigeria are assumed to be scaring and tend to deteriorate the whole economic system. Several studies have revealed negative effects of corruption on the growth of an economy (Ngutsav, 2018; Asom & Ijirshar, 2017; Ajie & Gbenga, 2015; Nageri, et al, 2013; Adewale, 2011). Even Adewale (2011) posits that although corruption is a universal phenomenon, its magnitude and effects are more severe and deep-seated in Nigeria. These seem to have trapped the pace of economic growth in Nigeria, as stated by several studies (Enofe, Oriaifoh, Akolo, & Oriaifoh 2016; Ajie & Gbenga, 2015; Nageri, et al., 2013; Hodge, Shankar, Rao, & Duhs, 2009; Adewale, 2011; Adenike, 2013; Kyarem, 2015). In addition, Tolu and Ogunro (2012) argued that the futile attempt by the government to fight the cankerworm stems from the fact that the government itself is greatly infected with the virus and an average Nigeria is seen as corrupt in most parts of the world. On the other hand, other studies have counter-argued that corruption is beneficial grease that lubricates the engine of economic growth (Aidt, 2009; Leff, 1964; Huntington, 1968; Summers, 1977; Lui, 1985). Given the foregoing controversies with the high incidence of corrupt practices and the staggering nature of economic growth in Nigeria, the empirical verification of the economic growth effects of corruption is an exercise whose need cannot be disputed.

Economic growth is a very famous notion from classical to updated modern studies. According to the World Bank (2004), economic growth is measurable alteration or enlargement in a country's economy. Besides, the World Bank (2004) contended, economic evolution is conservatively measured as the proportion intensification in the Gross National Product (GNP) or Gross Domestic Product (GDP) throughout in a year. With Nigeria's prominent position as the biggest economy in Africa (Knoema, 2018), economists and foreign investors have become increasingly interested in understanding the nature of the Nigerian financial system and the way in which financial system regulators and supervisors

administer the financial landscape free from corruption.

Nevertheless, the influence of bribery on economic recital is not merely narrowed to a straitlaced view that unambiguously denounces bribery. Conversely, observing the gigantic literature on this issue, it appears that the ethical verdict enticements its derivation from the economic significances of corruption. A unique aspect of the literature entitlements that corruption is flourishing in a government with deprived governance and convoluted rules. In detail, in such a situation, bribery not only survives but also seems to be accommodating in cultivating the economic activity. This is commonly recognized as the grease the wheels theory. The alternative element disputes that, though bribery could be favourable in definite circumstances, it brands the results inferior as it enforces supplementary expenses in the manufacturing procedure, thus mitigating the sand the wheels‟ hypothesis.

However, there is an increasing impression that government related corruption is on the rise, a problem that has plagued all successive governments. In line with this, the federal government main agenda is to eliminate the endemic corruption from the system, which led to the establishment of Independent Corrupt Practices and Other Related Offences Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC) as the apex body vested by law with the responsibility to fight corruption and other related offences in Nigeria. Despite the commendable effort, corruption continues to plague the country's government officials. This has had an impact on all aspects of economic growth, both in the public and private sectors. Nigeria is currently ranked 150/180 in the world among the most corrupt countries (Transparency International, 2022). It is against this background that this study was designed to investigate the impact of corruption on economic growth in Nigeria.

2. Literature Review

2.1 Conceptual Issues

The World Bank defines corruption as the abuse of public office for private gains. Public office is abused through rent seeking activities for private gain when an official accepts, solicits, or extorts a bribe. Public office is also abused when private agents actively offer bribes to circumvent public policies and processes for competitive advantage and profit. Public office can also be abused for personal benefit even if no bribery occurs, through patronage and nepotism, the theft of state assets or the diversion of state resources (World Bank 1997).

According to Ugur and Dasgupta (2011), corruption is both a symptom and an outcome of institutional weakness, with potentially negative consequences for a country's economic performance. Adegoke (2017) indicates that corruption has become a fast way of life and it has eroded the country's integrity. Adela et al., (2014), defined it as the abuse of public duty for private gain by a public official or different entity. According to Kasimu and Kolawole (2015), corruption entails the use of bribes to persuade someone to do something that is against the law. Ngutsav (2018) describes corruption as clogging the wheels of economic development. He goes on to says that corruption is recognized as a bad thing even by those who practice and perpetuate it. He also indicates that corruption is not only found in democratic and dictatorial politics but also feudal, capitalist, and socialist economies.

Ochejele, (2007) defines economic growth as "the quantitative and sustained increase in the country's per capita output or income accompanied by expansion in labour force, consumption, capital and volume of trade". Accordingly, According to Anyanwu and Onikhenan (1995) simply defined economic growth as the increased overtime of a country's or an economic capacity to produce those goods and services needed to improve the well-being of the citizens in increasing numbers and diversity. It is conventionally measured as the percentage rate of increase on Real Gross Domestic Product (RGDP). Growth is usually calculated in real terms, that is, inflation- adjusted terms, in order to net out the effect of inflation on the price of goods and services produced. The growth of Real Gross Domestic Product (RGDP) between 2004 and 2008 was driven mainly by the non-oil sectors as reflected in the non-oil GDP and that the industrial output however fell by 2.2 percent due to poor performance of the oil sector CBN (2008).

2.2 Theoretical Review

Major proponents of the elite theory are 'Vilfredo Pareto (1848–1923), Gaetano Mosca (1858–1941), and Roberto Michel's (1876–1936).' The elite theory can be used to explain dominance of corrupt practices in Nigeria. The elite theoretical viewpoint emphasizes a society's leadership and how it influences socioeconomic and governance matters (Igiebor, 2019). The words 'elite' and 'elites' denote someone in a culture who wields undue political, social, or economic power as a result of their exposure, skills, relationships, education, and material wealth (Bottomore, 1976; Nwankwo, 1997; Parry, 1976). They are a privileged minority with leadership skills, aspirations for leadership, access to key bodies of knowledge and intelligence. They play dominant roles in orchestrating policy agendas and setting political goals in the political realm (Igiebor, 2019). Ihonvbere (2009) espoused that the elites control societies political and economic systems, they establish and maintain societies ideological sphere, particularly through force.

The Policy-Oriented Theory of Corruption was introduced by Teveik, Albert, and Charles in 1986 to clarify the role of the government in fighting corruption. They argue that considering the prevalence of corruption, government corruption has been surprisingly harmful to economic development, necessitating a thorough investigation. According to the theory, a high level of corruption in any country, whether developed or developing, will prevent the economy from growing, and that if the area of administrative corruption is to become more theoretical and less descriptive, it must establish a structure and methodology that will enable it to be measured.

Huntington (1968) propounded the theory of sand the wheel. The notion that corruption is harmful to innovation and economic growth has been widely supported by researchers. Rose-Ackerman (1997), suggest that officials may cause delay or introduce needless requirements to induce corruption. Such delays tend to have a negative impact on innovation efforts. Anokhin and Schulze (2009) argue that the basis of trust for institutions get undermined and impaired when corruption is involved. Moreover, firms come under greater risk when there is a chance that public servants may appropriate their rewards. Additionally, they can exploit their unique access to inside information that the private sector does not possess yet may be essential to firm innovation to gain leverage over other firms. Thus, when trust for institutions does not exist, firms could be discouraged to proceed with projects they deem too risky, or where future profits are ambiguous. Yet another uncertainty is the case where corruption is ex post opportunistic. Since corruptive behaviour is not supported by any legal institutions, this makes it easier for the agent in this case the public official to demand additional payments even after the initial undertaking. Besides, due to the negotiations being in favour of the agents as they have the upper hand in the agreement, the official may expropriate without fear for repercussions from the firm or innovator (Luo, 2005).

The theory of grease the wheel was propounded by Leff (1964) and Leys (1965). There are, however, also theories supporting the notion that corruption can promote innovation in certain cases (Leff, 1964; Leys, 1965; Acemoglu & Verdier, 1998) particularly in countries where institutions are weak and underdeveloped (Acemoglu & Verdier, 2000; de Vaal & Ebben, 2011; Krammer, 2014). Moreover, researchers have also argued that government intervention to correct corruption in its entirety may create yet another "trade-off between market failure and government failure," as correcting for corruption may lead to an exacerbation of the problem and increased inefficiency (Acemoglu & Verdier, 2000, p.194). Thus, the main assumption of the greasing hypothesis suggests that corruption can help firms overcome complex and lengthy bureaucratic procedures.

2.3 Empirical Review

Makar, Ngutsav, Ijirshar, and Ayaga, (2023) examined the impact of corruption on economic growth in Nigeria from 1986 to 2019. The study used the Johansen cointegration test and vector error correction tests for the data analysis. The study shows that increases in the level of corrupt practices significantly inhibit economic growth in Nigeria in the long run but are insignificant in the short run at the 5% level of significance. The study further reveals that there is a weak transmission effect of corruption on economic growth in Nigeria through household consumption, foreign direct investment,

domestic investment, government spending, export and import of goods and services in Nigeria. The study recommends that in fighting corruption, Nigeria requires good and virtuous leaders who are honest with integrity, discipline and trustworthiness, the creation of employment, and the upgrading of Nigeria police among others and that the Nigerian government should advance the use of anti-corruption agencies such as the Independent Corrupt Practices Commission to properly investigate corrupt practices and to apportion appropriate sanctions, strengthen its institutions, and intensify efforts to create more agencies beside the Economic and Financial Crimes Commission and Independent Corrupt Practices Commission to address cases of corrupt practices in the economy.

Mohamad, (2023) examined the impact of Corruption on economic growth identified in the present literature. Impact of Corruption on economic growth has been tested in multiple studies utilizing time series, panel, and cross-sectional data for various time periods and locations. Although most empirical research has supported the idea that corruption has a considerable impact on economic growth, others have demonstrated that corruption has no significant impact on economic growth. The study draws its conclusions from a variety of investigations. The literature identified that depending on the circumstances, corruption can have both good and bad consequences on economic growth. Besides, the impact of corruption on economic growth varies per country, and time period under consideration based on a variety of characteristics such as economic development, political system, and legal system.

Yusof, Jit, and Ridzuan, (2023) examined corruption's impact on economic growth, as measured by real GDP per capita (constant 2015 US$) in Malaysia. The study utilized the autoregressive distributed lag (ARDL) method to investigate the relationship between corruption and economic growth in Malaysia. The data used in the analysis were obtained from the World Bank and International Country Risk Guide data repository and covered the period of 1992-2021 annually. The Corruption Index was used to measure corruption. At the same time, other variables included economic growth (GDP), Gross Capital Formation (GCF), General Government Final Consumption Expenditure (GE), Individuals Using the Internet (INT), Labor Force (LF), and School Enrollment (SE) in Malaysia. The study's finding revealed that corruption and economic growth in Malaysia have a long run relationship when considering the measures of GCF, GE, INT, LF, and SE in the model. The study further revealed that when the measures of GCF, GE, INT, LF, and SE were included interchangeably and combined in the model, corruption had a positive and significant impact on economic growth in Malaysia. The corruption and economic growth in Malaysia have a significant short-run relationship when considering the measures of GCF, GE, INT, LF, and SE in the model. The study's limitation relates to the data used, as alternative corruption measures beyond the corruption index could yield different outcomes. The study's distinctive contribution is exploring the impact and relationship between corruption and economic growth, specifically in Malaysia.

3. Methodology

The study adopted ex-post facto design to investigate the impact of corruption on economic growth in Nigeria during the 1996-2023. To this end, the study utilized secondary data based on variables of the study. The method of analysis was based on cointegration to carry out the investigation. The dynamic ordinary least square (DOLS) and Granger Causality tests would be employ to determine the causal elements in the parameters. The data were collected from various sources including Central Bank of Nigeria (CBN), World Development Indicator (WDI) database and Transparency International (IT).

The study adapt the model of Pellegrini and Gerlagh (2004) in which they identified the direct and indirect effects of corruption on economic growth and in line with Policy-oriented theory adopted in the study, which permits the inclusion of more policy variables in economic growth equation.

This study, therefore mirror the work of Pellegrini and Gerlagh (2004) and Nageri, Gunu, and Abdul (2013) the model is stated as:

$$\ln GDP = \beta_0 + \beta_1 \ln CPI + \beta_2 \ln CR + \beta_3 \ln RCR + \beta_4 \ln COC + U \ldots\ldots\ldots\ldots (1)$$

Where:
GDP = Gross domestic product

CPI = Corruption Perception Index
CR = Corruption Rank
BRB = Bribery
COC = Control of Corruption
U = Error term
The model is adjusted to allow for the inclusion of other corruption variables that are relevant to this study. Thus, the model was modified as presented below:

Specifically, the model was modified to include money laundering, as its explanatory variables.

The functional form of the model is specified as follows;
$GDP_t = f(PTC_t, GRC_t, MOL_t, BRB_t)$ …….(2)
The econometric and linearization of the model was done to convert all of the variables into the same unit of measurement thus, specified below:
$\ln GDP = \beta_0 + \beta_1 \ln PTC + \beta_2 \ln GRC + \beta_3 \ln MOL + \beta_4 \ln BRB + U$ ……..…..…… (3)

Where:
GDP= Gross Domestic Product
PTC = Petty corruption
GRC = Grand Corruption
MOL = Money laundering
BRB = Bribery
μ= Stochastic Term
$\alpha, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Parameters

The model a priori expectations are that each of the parameters is negative that is, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 < 0$.

4. Results and Discussion

Data collected from the various secondary sources consulted for regression analyses. These include annual time series on the petty corruption (PTC), grand corruption (GRC), money laundering (MOL), and bribery (BRB) on the economic growth proxy by gross domestic product (GDP) in Nigeria for the period 1996 to 2023.

Table 1: Augmented Dickey-Fuller (ADF) Test Results

Series	Unit Root at Level					Unit Root at First Difference				
	ADF T-Statistics	Critical T-Statistics	P-Values	Order of Integration	Remarks	ADF T-Statistics	Critical T-Statistics	P-Values	Order of Integration	Remarks
GDP	8.902069	-2.981038	1.0000	I(0)	Accept H_0	-4.217016	-3.603202	0.0141	I(1)	Reject H_0
PTC	-2.174290	-3.595026	0.4832	I(0)	Accept H_0	-4.876961	-3.603202	0.0033	I(1)	Reject H_0
GRC	-5.022826	-3.632896	0.0030	I(0)	Reject H_0	-4.853520	-3.603202	0.0035	I(0)	Reject H_0
MOL	-1.832425	-3.644963	0.6525	I(0)	Accept H_0	-5.765905	-3.673616	0.0009	I(1)	Reject H_0
BRB	-3.489515	-3.595026	0.0616	I(0)	Accept H_0	-5.416932	-3.603202	0.0010	I(1)	Reject H_0

Source: Author's Computation 2024, using E-view 12.0 version

NOTE: Test was conducted at 5% Level of Significance

The unit root test results in table 1 shows that all the variables (GDP, PTC, GRC, MOL, and BRB) when tested at level or I(0), have unit root or are not stationary except GRC which has p-values, that is less than 0.05 level of significance. However, when the variables where tested at first difference or I(1), they (GDP, PTC, MOL, and BRB) all have no unit roots or became stationary. This is evident by having p-values, which are less than 0.05 levels of significance. In general, the unit root test results shows that the variables under study have a stochastic trend and are good for inclusion in the chosen model for their parameter estimation. This shows that the variables have mixed order of integration, which makes it suitable for the application of DOLS.

Table 2: Johansen Cointegration Test Results

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.814380	139.4662	95.75366	0.0000
At most 1 *	0.753804	99.04888	69.81889	0.0001
At most 2 *	0.646199	65.40985	47.85613	0.0005
At most 3 *	0.571056	40.47338	29.79707	0.0021
At most 4 *	0.459764	20.15908	15.49471	0.0092
At most 5 *	0.200854	5.381090	3.841465	0.0203

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation 2024, using E-view 12.0 version

An examination of table 2 showed that the trace statistics 139.4662, 99.04888, 65.40985, 40.47338, 20.15908, and 5.381090 are greater than critical values 95.75366, 69.81889, 47.85613, 29.79707 15.49471, and 3.841465. The study therefore reject H_0 of no cointegration and concludes that there is existence of six unique co-integrating equations between the variables; GDP, PTC, GRC, MOL, and BRB at 5 percent level. Thus, it can be concluded that there is long-run relationship between Corruption and economic growth in Nigeria during the 1996-2023. Since there is at least six co-integrating equation found in the model, the study concludes that significant long-run relationship exists among the variables. Also, since all the variables were found to be stationary and co-integrated, the study can now perform model estimation test.

Table 3: Results of the Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.307551	22.83416	-0.232439	0.8220
LPTC	0.064212	0.428573	4.816474	0.0013
LGRC	-0.096273	4.806489	-1.039485	0.3290
LMOL	-0.713924	2.452427	-1.106628	0.3006
LBRB	-0.675398	3.344064	-3.589637	0.0071
R-squared	0.947732	Mean dependent var		11.17618
Adjusted R-squared	0.882397	S.D. dependent var		0.704208
S.E. of regression	0.241496	Sum squared resid		0.466563
Long-run variance	0.058049			

Source: Author's Computation 2024, using E-view 12.0 version

GDP = -5.307551 + 0.064212LPTC -0.096273LGRC -0.713924LMOL -0.675398LBRB

The variables had undergone transformation to natural logarithms, the coefficients could, therefore be treated as elasticity coefficients, which indicated the percentage change of LGDP, when any of them changes by 1 per cent.

The variables of the study are in conformity with the model apriori expectation by being negatively impacted economic growth except PTC that positively impacted economic growth during the period of review.

The petty corruption (PTC) coefficient (0.064212), indicate that a unit change in PTC tend to increases the GDP by 6%, during the period under review.

The grand corruption (GRC) coefficient (-0.096273), indicate that a unit change in GRC tend to decreases the GDP by 9%, during the period under review.

The money laundering (MOL) coefficient (-0.713924), indicate that a unit change in MOL tend to decreases the GDP by 71%, during the period under review.

The bribery (BRB) coefficient (-0.675398), indicate that a unit change in BRB tend to decreases the GDP by 67%, during the period under review.

The 0.947732 coefficient of multiple determinations (R^2) shows that up to 94% of the variations (changes) in the GDP were explained by the explanatory variables (PTC, GRC, MOL, and BRB). The remaining 6% variations are unexplained due to other factors, which are affecting GDP but not captured in the model or due to the error of measurement (U_i). This is a good fit of the model and shows that the data collected is suitable for analysis in Nigeria.

4.1 Discussion of Findings

The findings of study is partly in line and partly at variant with the outcomes of other scholars who have carried out studies on the same or related areas mostly in terms of signs of the variable's coefficients and significances. While it is important to note that corruption in any form is generally detrimental to economic growth, there is a distinction between various components of corruption in terms of their impact on the economy. Petty corruption refers to low level corruption involving small bribes or favours. On the other hand grand corruption, money laundering, bribery incidences involves large sums of money, abuse of power, and the diversion of public resources for personal gains, it undermines the rule of law, weakens institutions, and erodes public trust in the government.

In general, the study outcome is line with those of Muzurura (2017) Cabaravdic and Nilsson (2017) Sharma and Mitra (2019) Chakravorty (2019) Ekone and Amaghionyeodiwe (2020) Khan, (2020) Ghoneim and Ezzat (2016) Rotimi (2013) Ben (2018) Mallik and Saha (2016) Abdikarim, Bashir, and Jama (2021) who found a positive impact of corruption on economic growth in Nigeria; which is in conformity with the grease the wheel theory. However, the findings of the study disagree with those of David and Garr (2021), Odi (2014), Kaddachi, Hayet and Ben Zina, Naceur (2022), Nageri, Gunu, and Abdul (2013), Antwi (2020), Miloud (2020), Klaus and Niklas (2019), Alfade (2019), Agostino (2016), and Nwankwo (2014) who rather found negative impact of corruption on economic growth in Nigeria, which reiterated the sand the wheel theory.

The result on table 3 revealed that petty corruption has positive and strong impact on gross domestic product in Nigeria. The result implies that gross domestic product increases as petty corruption rise proportionately; the petty corruption has magnitude of 6% which indicates that a unit change in petty corruption will increase the gross domestic product by about 6%. The result of this study indicates that petty corruption has a strong influence on increasing the gross domestic product in Nigeria. The reason is that the petty corruption can sometimes have a limited positive impact on economic growth in certain contexts, in some developing countries, including Nigeria where bureaucratic processes are slow or inefficient, petty corruption can act as grease that facilitates the functioning of the system.

The finding revealed that grand corruption has negative and weak impact on gross domestic product in Nigeria. The result implies that gross domestic product decreases as grand corruption rise conversely; the grand corruption has magnitude of 9%, which indicates that a unit change in grand corruption will decrease the gross domestic product by about 9%. The result of this study indicates that grand corruption has a negative influence on decreasing the gross domestic product in Nigeria. The reason is that the grand corruption involves large sums of money, abuse of power, and the diversion of public resources for personal gain; it undermines the rule of law, weakens institutions, and erodes public trust in the government. Grand corruption distorts market competition, discourages private investment, and deters foreign investors who seek a transparent and fair business environment; grand corruption can act as sand that distorts the functioning of the system.

The finding revealed that money laundering has negative and weak impact on gross domestic product in Nigeria. The result implies that gross domestic product decreases as money laundering rise conversely; the money laundering has magnitude of 71%, which indicates that a unit change in money laundering will decrease the gross domestic product by about 71%. The result of this study indicates that money laundering has a negative influence on decreasing the gross domestic product in Nigeria. The reason is that the money laundering involves large sums of money, abuse of power, and the diversion

of public resources for personal gain; it undermines the rule of law, weakens institutions, and erodes public trust in the government. Money laundering distorts market competition, discourages private investment, and deters foreign investors who seek a transparent and fair business environment; money laundering can act as sand that distorts the functioning of the system.

The finding revealed that a bribery incidence has negative and weak impact on gross domestic product in Nigeria. The result implies that gross domestic product decreases as bribery incidence rise conversely; the bribery incidence has magnitude of 67%, which indicates that a unit change in bribery incidence will decrease the gross domestic product by about 67%. The result of this study indicates that bribery incidence has a negative influence on decreasing the gross domestic product in Nigeria. The reason is that the bribery incidence involves large sums of money, abuse of power, and the diversion of public resources for personal gain; it undermines the rule of law, weakens institutions, and erodes public trust in the government. Bribery incidence can act as sand that distorts the functioning of the system.

5. Conclusion and Recommendations

The study examined the impact of corruption on economic growth in Nigeria for the period spanning 1996 to 2023. Given the result of the unit root test and the DOLS model, it was revealed that the variables are co-integrated. Consequent to the co-integration result, the model was analysed using the DOLS analysis. Based on the analysis, the long- run regression estimate revealed that all the variables grand corruption, money laundering, and bribery incidence had negative impact on the economic growth of Nigeria in the long-run, except petty corruption that has positive on economic growth. In addition, the study derives vigorous results from the post estimation analysis that revealed the overall impact of corruption on economic growth and the stable parameter stability test of the models, which is indicative of the reliability of the results for corruption policy formulation in Nigeria.

i. Based on the findings, petty corruption can sometimes have a limited positive impact on economic growth in certain context; the study thereby recommends that government should enhance the rule of law, transparency, and accountability within institutions. This includes promoting an independent judiciary, effective law enforcement agencies, and robust anti-corruption mechanisms to combat petty corruption in Nigeria

ii. The study recommends that government should strengthen Anti-Corruption institutions, enhance the capacity, independence, and effectiveness of anti-corruption agencies such as the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Other Related Offences Commission (ICPC). Provide them with adequate resources, training, and legal authority to investigate and prosecute grand corruption cases in Nigeria.

iii. The study further, recommends that government should strengthen Anti-Money Laundering (AML) framework by enhancing the legal and regulatory framework for combating money laundering. Implement and enforce comprehensive AML laws that align with international standards, such as the Financial Action Task Force (FATF) recommendations. Ensure that relevant legislation covers all aspects of money laundering, including prevention, detection, investigation, and prosecution.

iv. The study recommends that government should enhance financial sector supervision and strengthen the oversight and regulation of financial institutions, and virtual asset service providers. Ensure effective implementation of customer due diligence (CDD) measures, transaction monitoring systems, and reporting mechanisms to detect and report suspicious transactions.

v. Government should improve security infrastructure through enhance physical security infrastructure in vulnerable areas, such as critical infrastructure, public facilities, and transportation

networks. Install surveillance systems, alarms, and other security measures to deter theft and vandalism in Nigeria.

vi. Government should strengthen whistleblower protection: establish mechanisms to protect individuals who report money laundering activities. Implement laws and policies that provide legal safeguards, confidentiality, and incentives for whistleblowers to come forward with information on money laundering activities.

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