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## Article

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## The Demand for Corruption: A Case of Nigeria

Feyisayo Oyolola<sup>1</sup>, Richard Kyarem<sup>2</sup>

**Abstract:** The study examines the demand for corruption in Nigeria between 1991 and 2018. While there exist a vast number of literatures on the impact of corruption on several socioeconomic indicators, this study adds to the scanty existing literature on the demand for corruption from the Nigerian perspective. Applying the Autoregressive Distributed Lag Model (ARDL) estimation technique, findings show that both in the shortrun and long run, there exist a positive relationship between income levels, income inequality, unemployment rate and the demand for corruption in Nigeria. Also a negative relationship between poverty and the demand for corruption was found to exist both in the short and long run. Notably, income levels were found to significantly influence the demand for corruption in Nigeria both in the short and long run. The implication of the finding suggests that since higher income levels imply higher demand for corruption in Nigeria, government can reduce the demand for corruption by reducing income inequality through wealth redistribution measures.

**Keywords:** poverty; income Inequality and unemployment;

### 1. Introduction

Nigeria is bedeviled by myriads of problems ranging from crime and terrorism, poverty, unemployment to corruption. However, of all these problems, the issue of corruption is most precarious especially due to its devastating impact on development. In this twenty-first century, corruption is one of the developmental problems faced by many developing economy including Nigeria (Nye, 1967). According to Emaikwu (2011) this problem is one of the greatest challenge mitigating against the progress of the country and has continued to increase year-over-year.

Demand for corruption is as old as the existence of man (Kaufman, 1997). It exists in the public and private sectors of governments, profit and non-profit organizations, religious organizations as well as charitable organizations. From a historic point of view, demand for corruption in Nigeria was heavily concentrated in the political system of the country even before independence and the activities of Nigerian nationalist (Ogbeidi, 2012). During the colonial era, corruption manifested in the form of Nigerians being bribed with different foreign goods in exchange for local products such as slaves and from then up until now, various regimes have been fraught with diverse corrupt practices. For instance, with the creation of modern public administration in the country several cases of official misuse of resources and funds have been recorded. Two major events argued to have festered the high demand in corruption have been identified to be the discovery of crude oil and the rise of public administration. A prominent case in point is the 2012 corruption case of the Nigerian petroleum industry. During this

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period, the federal government of Nigeria inaugurated a 17-member task force team to probe the petroleum industry. Reports from their investigation revealed that Nigeria had lost tens of billions of dollars in oil and gas revenues over the last decade from cut-price deals struck between multinational oil companies and government officials. Ijewereme (2015) however averred that this disclosure provides new evidence of Nigeria's long history of corruption which has enriched its elite and their cronies in the oil industry while two thirds of the people still languish in abject poverty. Additionally, other conspicuous cases of corruption include; the police pension fund fraud, kerosene subsidy scam, ₦195 billion Maina pension scam, Stella Oduah car purchase scandal, Mohammed Abacha ₦446 billion case, crude oil theft scandal and the Nigerian National Petroleum Corporation (NNPC) missing ₦20 billion case among others (Ijewereme, 2015; Eme, Uche & Uche 2014; and Anaedozie, 2017).

The high demand for corruption in the country necessitated the establishment of two anticorruption agencies mandated to check the spread of this menace. These agencies include, the Economics and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and other Related Offences Commission (ICPC). They are essentially responsible for penalizing offenders and curbing corrupt practices at all levels. Dismally, despite the inauguration of these institutions, no tangible result has been achieved. Similarly, Odekunle (2006) observed that, the level of corruption in Nigeria is at an endemic state and in spite of various measures undertaken to stem its spread, it has remained unabated. It is found in all sectors of society, ranging from the big sector to the small sector. More so, Mbaku (1996) asserted that the system has deteriorated such that corruption is used to check corruption by corrupting the system all the more thereby making the demand for corruption very high in Nigeria. In the same vein, Moyosore (2015) observed that, efforts channeled towards addressing this siege have always met with frustration due to the constant emergence of newer and more sophisticated ways to engage in corrupt practices.

Various studies have examined the impact of corruption on socio-economic indicators and development variables such as economic growth, economic development, unemployment and poverty. Some of this studies include the investigations of Onchari (2019), Negin, Abd Rashid & Nikopour (2010), Donwa, Mgbame & Ogbeide (2015), Khagram (2005) and (Nwabuzor, 2005). However, the question as to what triggers the demand for corrupt practices particularly in Nigeria have not received sufficient attention and as such remained under-investigated. A major detriment of corruption is that it impedes growth and development and also reduces a nation's capacity to expel poverty (Elliot, 1997; Urien, 2012; and Ogbeidi, 2012). Given the pernicious effect of corruption, it is a problem whose solution cannot be put at a later date and therefore demands urgent policy action.

This study therefore seeks to fill this identified gap and contribute to the frontier of knowledge by empirically identifying the causes of the demand for corruption in Nigeria and suggesting plausible ways in which this demand can be controlled.

This study is structured into five sections: following this introductory section, Section 2 presents the review of previous literatures. Section 3 describes dataset adopted for the study and methodology, section 4 presents the analysis of results and discussion while Section 5 concludes with policy recommendations and direction for future work.

## **2 Review of Previous Literatures**

### **2.1 The Concept of Corruption**

There is no well-defined and universally acceptable definition for corruption. However, various labels have been adopted by different scholars to describe corruption and the typology of corruption in Nigeria. Obayelu (2007) identified some of these labels to include bribery, extortion (money and other resources extracted by the use of coercion, violence or threat), embezzlement (theft of public resources by public officials), financial malpractice, egunje, dash, brown envelops, tips, gratification, emoluments, greasing, inducement, payments under the table and sub-payments, softening the ground, side payments, irregular payments, undocumented extra-payments, facilitation payments, mobilizations fees, routine governmental action, revised estimates, padded contract, over/under invoicing, cash commission, kickback, payoff, convert exchanges, shady deals and cover-ups. In addition to these labels, Umo (1993) identified grafts, negligence and smuggling to be included.

From the above description, it is evident that the concept of corruption is very complex, attracting different views and approaches as to what properly constitutes corruption. According to Nye's (1967) corruption is any behavior that deviates from the formal duties of a public servant (appointive or elective) as a result of private interest regarding wealth, status or gains. Webster (1974) describes corruption as the impairment of virtue, integrity or moral principle. However, the usage of the term 'impairment' in the definition may be misconstrued as a harm, injury or inability that is beyond the control of an individual, a sense that undermines the act of corruption. Nonetheless, this definition allows us to admit a range of morally offensive and criminal behavior as acts of corruption. To Macrae (1982), corruption is the misappropriation of resources meant for the public to cater for personal ends. This description aptly fits public sector corruption. It illustrates corruption as the collection of bribes by public officials for the issuance visas or passports, licenses or permits, authorization for the passage of goods at the air/sea port and the enactment of regulations aimed at creating artificial scarcity.

According to Asian Development Bank, corruption refers to the behaviors of private and public officers who unlawfully and improperly enrich themselves and/or those who are closely related to them, or induce others to engage in corrupt practices, by misusing the position in which they are placed (Agbu, 2003). Rose-Ackerman (1999) lamented that corruption exists because institutions established with the objective of regulating interrelationship between the citizens and the states are used instead for personal enrichment and provision of benefits to the corrupt.

From the foregoing, it is evident that there is not no agreement as to what corruption exactly means, however, one similarity among these numerous definitions is the unlawful use of funds or position which should have been utilized for the benefit of the society as a whole.

### **2.2 Empirical Review of Literature**

Demand for corruption can be seen as the amount of corrupt activities required by an individual or government officials. Khagram (2005) observed a link between corruption and poverty while Theobald (2002) asserted that global poverty may be the most important reason for international corruption. According to this study, many public officials may be motivated to demand for corruption, because they

are apparent victim of poverty. These public officials may therefore result to corrupt practices in order to provide basic needs of housing and food for themselves and their dependents. Similarly, Hotchkiss (1998) argued that due to poverty and low wage earnings relative to high cost of living, individuals may be compelled to demand for corruption.

Eras (2003) found a link between corruption and freedom. The study emphasized that economic freedom comprises of factors such as wages and prices, trade, government intervention, monetary policy and the informal economy size. This freedom however, is often thwarted by the policies adopted by government especially policies aimed at imposing strict economic constraints. This lead to the creation of lost economic freedom which in turn creates room for more corrupt practices. The increase in the level of corruption damages the people's faith in government which erodes structures and economic capacities (Nwabuzor, 2005). Additionally, the study of Sanyal & Saman (2004) observed that economic freedom also impacts the demand for corruption in developing countries. Two major findings from their study are; One, economic factors that supports controlled government intervention, market forces, rule based system and good public finance are less likely to encourage corruption. Two, encouraging economic policies that supports open economy rather than closed economy will largely reduce the incidences of corruption.

Furthermore, another strand of literature observed a link between ethnic polarization and corruption. Easterly & Levine (1997) argued that divided societies fosters competition among the various ethnic groups which aggravates political patronage and bureaucratic predation. They further argued that demand for corruption in deeply divided societies may be higher at any given price. For instance members of the same ethnic group may feel that the only way to obtain government services is to demand favours from their co-ethnic members in the offices. On the other hand, the supply of corrupt services may be increased by the social leverage that ethnic leaders have over officials of their ethnicity and as such may be reluctant to refuse the demand of their co-ethnic members.

Bliss & Di Tella (1997) conversely, contended that corruption will always have to do with power at all levels. Power at all levels is the ability of a party to be able to control the behavior of the other party. Robbins (2000) buttressed this assertion by explaining how that withholding or offering something of value to a dependent party can be used as a means to control the behavior of the dependent party. According to the study there exist a measure of power both in the hands of a bribe taker and a bribe giver, and therefore both those who demand and those who supply bribe possess some degree of power over the other.

To Harrison (2000) and Landes (2000) culture is a primary determinant of corruption and culture partly account for the diverse philosophy and varying attitudes of people (Huntington, 2000). According to these authors, the demand for corruption may be influenced by people's cultural value systems which may endorse, rather than condemn the act of corruption. Also, they observed that the existing social structures of some nations may fuel the propensity to resort to corrupt practices so as to achieve the socially approved goals. Maingot, (1994), Izraeli (1997) and Khera (2001) further found that in some cultures, even at the expense of ethics, family favourism and nepotism are integral part of their business transactions.

The study of Werlin's (2002) maintained that the extreme weakness of governance in many nation is the reason for the high demand for corruption in those countries. The study debated that in some countries, government officials may accept bribes because there are no stringent measures that prevents them from doing so. Possible reasons provided for the absence of these measures include poverty of a nation, system of government and unsophisticated legal system. On the other hand, Beets (2005) contested that lack of education or poor quality education explains the demand for corruption by a public official. According to the study, with little education it might only be possible to comprehend only the short term personal gains from corruption without comprehending the global implications of corruption.

### **3 Description of Data and Methodology**

#### **3.1 Data Description**

The variables used for this study are Corruption Perception Index (CPI), Real Gross Domestic Product Per Capita (RGDPC), Inequality gap (GINI), Poverty rate (NPI) and Unemployment rate (UNR). RGDPC is a deflated measure for real income per capita which is a measure for standard of living.

Corruption Perception index (CPI) captures the demand for corruption. It is an index that ranks countries based on her perceived level of public sector corruption. The higher the CPI, the higher a country's demand for corruption.

Inequality gap is proxy by income inequality index. Inequality adversely affect the social norms about corruption (as an acceptable behaviour) and the beliefs of the people about the validity of rules and institutions (Jong-sung & Khagram, 2015). Also, the rich most often times have wider range of opportunities and greater motivation to engage in corrupt practices than the poor who are more vulnerable to extortion. Corruption widen inequality gap and as this gap widen it becomes increasingly difficult to monitor and hold the powerful and rich accountable. The higher inequality is the greater will be the demand for corruption and vice versa. Poverty rate (NPI) and Unemployment rate (UNR) are also contributory factors to the demand for corruption. As observed by Birdsall (1998) reduction of unemployment and the provision of cheap and affordable public services to the poor will reduce inequality, particularly income inequality which severely induces the demand for corruption. For instance, the unemployed will feel more obliged to engage in corrupt practices in the process of seeking for a job especially when the remuneration is very attractive.

#### **3.2 Data Sources**

The study utilized annual data ranging from 1991 to 2018 for the study period of 28 years. Data utilized for this study were sourced from publications of the Transparency International, National Bureau of statistics (NBS), Central Bank of Nigeria (CBN) and other published articles and text books.

#### **3.3 Theoretical Framework**

The theoretical underpinning for this study stems from the economic concept of demand, the Constant Elasticity Demand function and the Nerlove's demand function. Generally, demand is the amount of good or service a consumer is willing and able to purchase at a given period. Demand for a good or service is determined by many different factors but chiefly its price. In few extreme cases, demand may

be completely unrelated to price. Empirical evidence has proven on many occasions that quantity demanded is influenced by other factors such as market behavior (instead of individual consumer), multivariate functions instead of singular function (price) or few variable model, and simultaneous variation of multiple independent variables instead of holding other factors constant (Kyarem, 2010).

The Constant Elasticity Demand (CED) function proposes the demand for a product ( $Q_x$ ) as a function of its price ( $P_x$ ), the consumer's income ( $Y$ ) and the prices of substitutes or complements ( $P_o$ ). It assumes the coefficient of all the variables relevant to the demand function are elasticities of demand of each of the independent variables and are expected to remain constant.

Its general form is stated as:

$$Q_x = f(P_x, P_o, Y) \quad (1)$$

$$\text{Functionally, } Q_x = B_o + P_x^b + P_o^c + Y^d \quad (2)$$

Where  $B_o$  = exogenous variables, b, c and d = coefficient and price elasticities of demand

By this postulation, there is no money illusion which is fallacious in a globalized world that classifies men as billionaires/millionaires disregarding inflationary tendencies across national boundaries.

Also pragmatism has proven that the general demand function is overstressed when cases of consumer durables like transistor radios and non-durables like foodstuff or body creams are subjected to the quantity-price relationship, while the latter is purchased and consumed once in a period, the former is the reverse. Hence the Nerlove's demand function defines the current demand function for consumer durables ( $D^d_c$ ) as

$$D^d_c = f(Y_c + D_{c-1}) \quad (3)$$

Where  $D^d_c$  = current consumption of durable goods,  $Y_c$  = income consumers and  $D_{c-1}$  = previous consumption of the durable good. In explicit mathematical form,

$$D^d_c = a_1 Y_c - a_2 D_{c-1} \quad (4)$$

$a_1$  and  $a_2$  are the coefficients to be estimated and the a priori signs  $D_{c-1} < 0$  and  $Y_c < 0$ .

In this paper we take corruption as a durable consumer good, hence demand for corruption  $D_c$  is dependent on the level of income of individuals  $Y_i$ ; degree of Inequality,  $E_i$ ; the level Poverty,  $P_i$ ; and rate of unemployment  $N_c$ . The general form is

$$D_c = f(Y_i, E_i, P_i, N_c) \quad (5)$$

While the structural form is

$$D_c = \beta + a_1 P_i + a_2 N_c + a_3 E_i - a_4 Y_c \quad (6)$$

Whether viewed as a normal commodity, a commodity with constant elasticity or as a durable consumer good, the Nerlove and CES framework the analysis.

### 3.4 Model Specification

The model captures the dependent variable which is the demand for corruption captured by Corruption Perception Index (CPI). The independent variables include; Real Gross Domestic Product Per Capita (RGDPC) represented by income level, Inequality gap measured by Gini coefficient (GINI), National Poverty Index captured by Poverty rate (NPI) and Unemployment rate (UNR). Functionally, equation (5) can be re-written as;

$$CPI = f(RGDPC, GINI, NPI, UNR) \quad (7)$$

In linear econometric form, equation (7) becomes:

$$CPI = \alpha_0 + \alpha_1 RGDPC + \alpha_2 GINI + \alpha_3 NPI + \alpha_4 UNR + \varepsilon_t \quad (8)$$

equation (8) can be further written as;

$$LCPI = \alpha_0 + \alpha_1 LRGDPC + \alpha_2 LGINI + \alpha_3 LNPI + \alpha_4 UNR + \varepsilon_t \quad (9)$$

**Where;**

CPI represents corruption perception index,

RGDPC represents income (real gross domestic product per capita),

NPI is the poverty rate (National Poverty Index)

GINI is the Inequality gap (Gini Coefficient)

and  $\varepsilon_t$  is the disturbance term.

The presumptive signs of the variables are;  $\alpha_1 < 0, \alpha_3 > 0, \alpha_2, \alpha_4 > 0$

Using this model, the objective will be evaluated using the autoregressive distributed lag (ARDL) model as its empirical framework for two primary reasons: *First*, under the ARDL model, provision is made for both the dynamic and static effect(s) of the exogenous variable(s) on the endogenous variable. *Second*, ARDL framework offers a technique in checking for the existence of a long-run relationship between variables, which is referred to as the *Bounds test*. Bounds test is flexible as it accommodates both stationary and differenced stationary series which makes it superior to other cointegration test such as, Engle-Granger and Johansen tests, which considers only differenced stationary series integrated of the same order.

Thus, the ARDL model of the specification in equation (9) is:

$$\Delta LCPI = \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta LRGDPC + \sum_{i=1}^p \alpha_{2i} \Delta LGINI + \sum_{i=1}^p \alpha_{3i} \Delta LNPI + \sum_{i=1}^p \alpha_{4i} \Delta UNR + \varepsilon_t \quad (10)$$

## 4 Results and Discussion

### 4.1 Descriptive Analysis

In this section the data for all the variables utilized throughout the study is described with particular reference to the mean, median, minimum, maximum and standard deviation. This result is presented in Table 1 below. From the table, the series with the highest mean value is RGDPC while the series with



the lowest mean value is UNR. In terms of standard deviation, the most volatile is RGDPC while the least volatile is UNR.

**Table 1. Summary of Descriptive Statistics**

Variable	Mean	Maximum	Minimum	Standard Deviation	Median
RGDPC	281593.5	385349.0	202704.0	68375.68	274232.8
CPI	20.75623	28.00000	6.900000	6.240072	22.00000
GINI	46.17321	56.00000	39.00000	4.677754	45.40000
UNR	4.143571	6.237000	3.424000	0.772194	3.952500
NPI	56.93286	66.90000	50.00000	4.604647	55.50500

Source: Authors' computation from Eviews 9

## 4.2 Stationary Test Result

To ascertain that the data series utilized in this study properly satisfies that stationarity conditions and that the results obtain are not spurious, the Augmented Dickey-Fuller (ADF) test was conducted. This section presents the results of the ADF unit root tests with and without constant and trend.

**Table 2. Unit Root Test Result**

Variable	Level <sup>@</sup>	First Difference <sup>@</sup>	Level <sup>@@</sup>	First Difference <sup>@@</sup>	First Difference	Remark
LRGDPC	0.8371	0.1531	0.1566	0.4004	0.0287**	I(1)
LCPI	0.0237**		0.0101**			I(0)
LGINI	0.3325	0.2813	0.3562	0.5302	0.0347**	I(1)
UNR	0.6330	0.0571**	0.7136	0.0524**	0.0072***	I(1)
LNPI	0.1469	0.0002***	0.1944	0.0010***	-5.6208***	I(1)

<sup>@</sup> (<sup>@@</sup>) denotes unit root with constant and (with constant and trend) respectively

\*\*\* (\*\*) denotes rejection of the null hypothesis of unit root at the 1% (5%) level respectively

Source: Authors' Computation from Eviews 9

The ADF test result presented above shows that for all our variables except CPI, we cannot reject the null hypothesis of unit root. Hence, we differenced the non-stationary variables and re-apply the unit root test to confirm the stationarity of the variables at either 1% or 5% level of significance. However, due to the fact that some of these variables were not stationary at levels but at first difference, we proceed to test for the existence of cointegration in the variable.

## 4.3 Cointegration Test Result

Since the result of the conventional unit root test (ADF) shows that the series used in this study are either I(0) and I(1), the consideration of Bounds cointegration test is plausible. This section therefore presents and interprets the result of the Bounds integration test for the model in Table 3 below.

**Table 3. Result of ARDL Bounds Test for Cointegration**

Computed Wald (F-statistic): 7.7564						
	0.10		0.05		0.01	
K=4	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
F*	2.45	3.52	2.86	4.01	3.74	
						5.06

k represents number of regressors in the ARDL model, while F-statistic with unrestricted intercept with no trend

Source: Authors' computation

The above Bounds test for cointegration, shows the existence of cointegration among the variables since their associated F-stats jointly falls above the I(1) critical value bounds at all 1%, 5% and 10% levels of significance. Hence, having found a long run relationship among the variables, the ARDL estimate of the long run and short run parameter will be estimated next. However, before the estimation of the ARDL model, the optimum lag length for the model is determined from the lag length criteria. We relied upon the information provided by the lag length selection criteria presented in Table 4 to select the optimum lag length for the estimation.

**Table 4. Result of the Lag Length Criteria**

LAG	LOGL	LR	FPE	AIC	SC	HQ
0	17.63342	NA*	0.015685	-1.329833	-1.081297	-1.287771
1	19.82502	2.999028	0.013971*	-1.455265	-1.157021*	-1.404790*
2	20.84264	1.285417	0.014141	-1.457120*	-1.109169	-1.398233
3	21.15403	0.360560	0.015504	-1.384635	-0.986976	-1.317335
4	22.77758	1.709004	0.014907	-1.450272	-1.002906	-1.374560

\* represent order of lag length selected by criterion

Source: Authors' computation

From Table 4 above, majority of the lag length selection criterion suggested 1 period lag except Akaike information criteria (AIC). Therefore, this study therefore employs 1 period lag for the ARDL estimation.

#### 4.4 Regression Result and Discussion

**Table 4. Longrun and Shortrun Estimates**

Panel A: Long run Estimates			
Dependent Variable: CPI			
Independent Variables	Coefficient	Standard Error	T-Statistic (Probability)
C	-8.2043	4.9505	-1.6573 (0.1169)
LGINI	0.7653	0.6600	1.1595 (0.2633)
LRGDPC	1.0227	0.2395	4.2708 (0.0006)
LNPI	-1.1385	0.9395	-1.2118 (0.2432)
UNR	0.0074	0.0504	0.1462 (0.8855)
Panel B: Short run Estimates			
Dependent Variable: CPI			
Independent Variables	Coefficient	Standard Error	T-Statistic (Probability)
LGINI	0.7375	0.6870	1.0734 (0.2990)
LRGDPC	0.9855	0.3184	3.0955 (0.0069)
LNPI	-1.0971	0.9648	-1.1372 (0.2722)
UNR	0.0071	0.0486	0.1461 (0.8856)
ECT(-1)	-0.9636	0.1807	-5.3340 (0.0001)

**Diagnostic Tests**

Adj.  $R^2 = 0.7015$ ,  $F$ -Statistic = 10.8665(0.0001), BG  $X^2 = 1.0201(0.3859)$ , SR = 0.1624, JB[ $X^2(2)$ ] = 1.0355 (0.5959), RESET = 0.1976 (0.6630)

Probability values are in Brackets

Adjusted  $R^2$ : Goodness of fit for the model

BG: Breusch Godfrey LM test for Serial Correlation

RESET: Ramsey's regression equation specification error test.

JB: Jaque Bera test for normality of residuals

#### 4.4.1 Long run Estimates

The results for the estimated demand for corruption function is presented in Table 4 above. Panel A presents the long run estimates while panel B presents the short run estimates. The long run estimate results show that inequality gap, unemployment level and poverty rate coefficients all conforms to economic a priori expectation except for the coefficient of income level. The sign of the coefficient of GINI is positive but insignificant in the long run. This implies that the demand for corruption increases as inequality gap increases. From Table 4, 1 percent increase in current inequality gap will lead to 0.7653 percent increase in the demand for corruption in Nigeria. This results tallies with the findings of Karstedt (2001) who observed that countries with high income inequality have high level of corruption.

RGDPC is positively signed which is inconsistent with a priori expectation although statistically significant. The coefficient of 1.0227 shows that, the demand for corruption will rise by 1.0227 percent if the current level of income rises by 1 percent. The explanation for this nonconformity can be explained by the peculiarity of corruption in Nigeria. Apart from the fact that the Nigerian system finds it difficult to apprehend the rich and powerful for engaging in corrupt practices, the assertion of Jong-sung and Khagram (2015), on wider range of opportunities and greater motivation to engage in corrupt practices by the rich aligns with this result. Additionally, some incidences in Nigeria buttresses this argument that high income level does not insure against the demand for corruption. Two of such incidence is the 2009 Cecilia Ibru multi-billion money laundering scandal and the Ndidi Okereke money laundering scandal who were both high income earners. The former was charged with a case of money laundering of about 15 billion naira and 120 related offenses. She pleaded guilty to 3 of the 25-count charge against her and was sentenced to 18 months imprisonment as well as the forfeiture of over 191 billion naira in cash and asset management. Similarly, the latter was accused of misappropriation of funds (about 1.5 billion naira) and fraudulent transactions which almost led to the collapse of the Nigerian Stock Exchange market in 2009.

UNR has a positively insignificant relationship with CPI and 1 percent increase in UNR will lead to approximately 0.7400 percent increase in the demand for corruption. This result is in line with the study of Bayart *et al.*, (1997) who found that in the presence of high unemployment, the tendency to give out money in order to gain “special” favours and advantage in their struggle to get employed is done in many ways. Conversely, NPI has a negative relationship with CPI implying that the more poverty level rises the lower the demand for corruption. Explicitly, 1 percent increase in the current poverty rate will lead to 1.1385 percent decline in the demand for corruption. This result again tallies with the contention of Jong-sung and Khagram (2015) that the poor do not have wide range of opportunities and motivation to engage in corrupt practices. Additionally, the peculiarity and incidences of corruption in Nigeria in which majority of the profound cases have been found among the rich and powerful, possibly provides an explanation for the outcome of this finding.

#### **4.4.2 Short run Estimates**

Similarly, the results of the estimated short run parameters are presented in panel B of Table 4. All the coefficient of the explanatory variables were correctly signed except RGDPC. It is interesting to mention that the signs of the short run parameter coefficients is analogous to those of the long run estimate.

In the short run, GINI, UNR and RGDPC all have positive relationship with CPI while NPI has a negative relationship with CPI. Although only the RGDPC coefficient significantly affects CPI.

From Table 4, 1 percent increase in GINI will increase the demand for corruption by 0.7375 percent in the short run and 1 percent increase in RGDPC will also increase the demand for corruption by 0.9855 percent at 1 percent level of significance. This implies that increase in inequality gap increases the demand for corruption in Nigeria although not significantly. This finding tallies with the outcome of Glaeser, Scheinkman & Sheifer (2003). Possible reasons for this result has been provided in previous sections.

UNR has positively insignificant relationship with CPI and 1 percent increase in UNR will lead to approximately 0.071 percent increase in the demand for corruption. Conversely, NPI has a negative relationship with CPI. This implies that the more poverty level rises the lower will be the demand for corruption. That is, 1 percent increase in the current poverty rate will lead to 1.0971 percent increase in the demand for corruption.

The error correction term (ECT) is negative (-0.96) and statistically significant at 1 percent level of significance. This further lends credence to the cointegration among variables under investigation. The feedback coefficient of -0.96 suggest that about 96 percent of disequilibrium is corrected in the current year. The speed of adjustment is thus very high. Overall the results indicates that in the short run, changes in the explanatory variables in the estimated model impacts the demand for corruption in Nigeria.

#### **4.4.3 Diagnostic Test**

This section interprets the result of the post-estimation/diagnostic tests conducted on the estimated model presented in Table 4. It is observed from the table that the estimated model fails to reject the null hypotheses of normality of the residuals, no misspecification error and no serial correlation in the residuals among others since the reported probabilities are greater than 10 percent level of significance in all cases. Therefore the model can be concluded to be adequate for policy prescription and appropriate decision making.

Explicitly, the F-statistic value of 10.8665 indicates the overall statistical significance of the model at 1 percent level of significance as shown by the P-value of 0.0001. Thus, all the explanatory variables used in the model simultaneously explains the variation on the demand for corruption in Nigeria. The Adjusted  $R^2$  is 0.70 which implies that about 70 percent of the variation in the demand for corruption in Nigeria has been explained by the exogenous variables. Conversely, the goodness of fit of the estimated model measured by the adjusted coefficient of determination has high predictive capability. The Jaque-Bera test statistic for normality is 1.0355 with associated probability-value of 0.5959 implying that the null hypothesis of normally distributed error term cannot be rejected. The Ramseys regression equation specification error test is statistically insignificant, which confirms the acceptance of the null hypothesis of no misspecification.

## 5 Policy Recommendation and Direction for Future Work

The destructive impact of corruption has continued to have negative impact on the socioeconomic performance of Nigeria's economy. One way plausible way to control the spread of this menace is to reduce the demand for it. While there exist a vast number of studies on the impact of corruption on economic growth and development, there are very few literatures on the demand for corruption particularly in Nigeria. Findings from this study revealed that a key trigger of the demand for corruption in Nigeria both in the short and long run is income level measured by per capita income. Also income inequality gap, and unemployment rate were both found to have a positive relationship with the demand for corruption, while poverty level had a negative relationship with the demand for corruption both in the short and long run.

The findings from this investigation therefore suggest that increasing income levels will translate into higher demand for corruption. In order words, the higher the income level the greater the opportunities and motivation to demand for corruption in Nigeria. The government should control this tendency by reducing the income inequality gap through wealth redistribution. A possible mechanism through which wealth can be redistributed is through the operation of a progressive tax system. However, in the process of wealth redistribution it is important for the government to strongly put into consideration the degree of responsiveness of the demand for corruption to poverty and inequality. The reason is that, the degree of the responsiveness of the demand for corruption to wealth redistribution especially on the poor must be carefully observed in order to determine the optimum point at which further wealth redistribution will begin to induce the demand for corruption. Consequently, the aforementioned indicates an area for further work. In addition, this results further confirms the argument that majority of the cases of corruption in Nigeria is found among the rich and powerful who have more opportunities to engage in corrupt practices and exploit loopholes in the system. This tendency should be controlled by enforcing policies that empowering institutions responsible for handling cases of corruption in Nigeria.

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