

Relationship between Corruption and Transmission Mechanisms

¹Aliyu Musa, ²Zainab Said Suwaid & ³Lawal Wasiu Omotayo

^{1&2}Department of Economics Sule Lamido University Kafin Hausa

³Bayero University Kano

Abstract

In this study, the effect of transmission mechanisms through which corruption affects economic growth is evaluated by considering econometric analysis of panel models. The data sets in this study are obtained from Transparency International Organization and World Bank Data for a sample of developing countries between 2000 and 2008. The emphasis of this work will be on various transmission channels through which corruption affects economic growth. The objective of the paper is to examine the overarching importance of the transmission mechanisms through which corruption affects economic growth across six West African countries, viz; Nigeria, Ghana, Togo, Cameroon, Chad and Cote d'Ivoire, between the period of 1995 to 2014. This paper the effect of transmission mechanisms through which corruption affects economic growth through indirect methods. The indirect effects of corruption on economic growth emphasizes on the role of transmission channels. The transmission channels in this study are foreign direct investment and openness through which economic growth is influenced by corruption. The findings of the regression analysis revealed that the indirect effects of corruption on economic growth through FDI and OPENK are negligible and significant respectively. The reason might be due to the lack of predictability of corruption (uncertainty) in these developing countries. This illustrates that transmission channels have a role to play on the effects of corruption on economic growth in this sample under investigation.

Keywords: *Corruption, Openness to Trade, Foreign Direct Investment, Gross Domestic Product.*

Corresponding Author: Aliyu Musa

Background to the Study

Transparency International (2005) opine that “corruption is one of the greatest challenges of the contemporary world which undermines good government, fundamentally distorts public policy, leads to the misallocation of resources harms the private sector development and as well hurts the poor”. The need to study corruption and economic growth in West Africa has continued to generate passionate commentaries and academic interest due to its level in the region and its effect on economic growth.

There has been divergent views on the impact of corruption on economic growth. Some empirical studies and researchers are of the view that corruption greases the wheels of growth while other empirical studies and researches are of the view that corruption sands the wheels of growth. Proponents of the greasing hypothesis (Leff, 1964; Huntington, 1968; Lui, 1985; Méon and Weill, 2010) are of the opinion that corruption encourages trade that may not have happened otherwise and promotes efficiency by allowing private sector agents to avoid unmanageable regulations.

Also, Acemoglu and Verdier (1998) contend that some degree of corruption may be part of the optimal allocation of resources in the presence of incomplete contracts or on account of market failure. While some empirical studies on the other hand, contends that corruption exerts adverse effects on long term economic growth and development. A host of scholars and international organization constitute the proponents of this view. They include Mauro (1995), Rahman et al (1999), Kaufman (1997), African governance report (2005), Cleen Foundation (2010) and Opong, et al (2014). They are of the view that corruption has a negative impact on economic growth of any nation. The transmission mechanism of these negative effect of corruption on growth include foreign direct investment, openness to trade, human capital, rate of investment, rate of tax and political stability.

Objectives of the Study

The objective of this paper is to examine the overarching importance of the transmission mechanisms through which corruption affects economic growth across six West African countries, viz; Nigeria, Ghana, Togo, Cameroon, Chad and Cote d'Ivoire, between the period of 1995 to 2014.

Literature Review and Theoretical Framework

Theories of Corruption and Economic Growth

There are some theoretical models which investigate the effects of corruption on economic growth using a neoclassical model. The model of Everhart, Vazquez and McNab(2005) was used in this study because they emphasized the indirect effects of corruption on growth through transmission channels. In addition, the growth in Everhart, Vazquez, and McNab's model is based on GDP level, which makes it very similar to the model chosen for this study.

Everhart, Vaquez, and McNab Model of has both direct and indirect negative effects on economic growth. The indirect effect of corruption on economic growth is via private investment, public investment and human capital.

$$\ln(y_t') = (\alpha/1-\alpha-\beta)\ln(ik) + (\beta/1-\alpha-\beta)\ln(ig) + (1/1-\alpha-\beta)\ln(ih) - (\alpha+\beta/1-\alpha-\beta)\ln(n+g+\gamma+c)$$

In the above equation, the direct and indirect effect of corruption on the rate of growth can be derived. According to the terms of model above, the increase unit of corruption (c) leads to the reduction of growth rate (yt) directly. In addition, the indirect negative effect of corruption on growth rate via transmission channels is determined by Gt public, Kt private, and Ht human capital, which are shown by Ln(ig), Ln(ik), and Ln(ih).

Review of Empirical Studies

Mauro (1995) uses data from a sample of developed and developing countries to investigate the effects of corruption on economic growth. Using a single equation model and employing both Ordinary Least Squares (OLS) and Instrumental Variables (IV) estimating techniques, he finds that corruption has a negative and significant impact on economic growth. Most of the growth impact, he finds, comes through decreased investment in physical capita.

Rahman et al (1999) looked at the impact of corruption on economic growth and gross domestic investment in Bangladesh and provided support for the hypothesis that corruption adversely affects economic growth by decreasing foreign direct investment (FDI). Mo (2001) estimated direct and indirect impacts of corruption on economic growth during the period 1970 to 1985 using three transmission mechanisms namely, investment, human capital and political stability. The result indicated that a unit increase in the corruption index reduces the growth rate by about 0.545 percentage point. However, the direct effect of corruption becomes insignificant after controlling for the influence of other variables.

Ade, Babatude and Awoniyi (2011) in the study on Corruption, foreign direct investment and economic growth in Nigeria: An empirical investigation employing granger causality test and Ordinary Least Square Method in testing FDI inflow, corruption index, Exchange rate, Inflation rate, GDP for model one. For two, the variables are Gross Domestic Product, Government Expenditure, FDI and Gross fixed capital formation. The OLS result reveals that there is an inverse relationship between FDI inflow and corruption. This means that a large volume of FDI inflow is associated with a low level of corruption in the host countries. Exchange rate depreciation and inflation rate are significant determinations of FDI inflow in Nigeria.

Sanyal and samanta (2008) examined US foreign direct investment outflows with respect to the levels of corruption in form of bribery in 42 recipient countries over a five year period . The analysis indicates that US firms are less likely to invest where bribery as a measure of corruption index is wide spread.

Torrez (2002), examines the relationship between trade and corruption to test the argument that restricted trade shifts resources from productive activities to rent seeking activates. This study shows a negative relationship between corruption and trade.

Methodology

The overarching importance of the transmission mechanisms through which corruption affects economic growth was analysed using a sample of 6 West African countries over the period of 1995-2014. The model of Everhart, Vazquez and McNab (2005) was used in this study because they emphasized the indirect effects of corruption on growth through transmission channels. The model was also used by mina baliadoune-luts and leonendikumana(2008),

Emphasis of this work will be demonstrated on various transmission channels through which corruption affects economic growth. Common variables used to quantify transmission channels are the rate of investment, human capital, poverty, rate of tax, foreign direct investment, limitation of opportunities, political instability, and the diversion of the talent of innovators and producers toward rent seeking activities. The independent variables used in this study are corruption perception index, foreign direct investment, and openness.

Specification of the Model

The model of Everhart, Vazquez and McNab (2005) was used in this study because they emphasized the indirect effects of corruption on growth through transmission channels.

- (-1) $FDI = \theta_1 + \theta_1 CPI + \varepsilon$
- (-2) $OPENK = \mu_1 + \mu_1 CPI + \varepsilon$
- (-3) $GGDP = \beta_0 + \beta_1 CPI + \beta_2 FDI + \beta_3 OPEN$

The equations (-1) and (-2) are attempting to find the indirect effects of corruption on growth through foreign direct investment, and openness

$$GGDP_{it} = \beta_0 + \beta_1 CPI_{it} + \beta_2 FDI_{it} + \beta_3 OPEN_{it} + U_{it}$$

GGDP is Economic Growth

CPI is corruption index

OPEN is openness to trade

FDI foreign direct investment

Panel-Fixed Effects

In FEM the intercept in the regression model is allowed to differ among individuals in recognition of the fact each individual, or cross-sectional, unit may have some special characteristics of its own. To take into account the differing intercepts, one can use dummy variables. The FEM using dummy variables is known as the least-squares dummy variable (LSDV) model. FEM is appropriate in situations where the individual specific intercept may be correlated with one or more regressors. A disadvantage of LSDV is that it consumes a lot of degrees of freedom when the number of cross-sectional units, N, is very large, in which case we will have to introduce N dummies (but suppress the common intercept term)". Gujarati (2004).

$$Y_{it} = \alpha_i + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + V_t$$

Panel-Random Effects

Random effects assume that the entity's error term is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables.

In random-effects one will specify those individual characteristics that may or may not influence the predictor variables. The problem with this, is that some variables may not be available therefore leading to omitted variable bias in the model.

$$Y_{it} = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \alpha_i + w_{it}$$

Model Selection Criteria and Diagnostic Test

This study has data on multiple countries repeated multiple time periods. Panel unit root tests is conducted on the data to test for stationarity. However, this description is not satisfactory to determine fixed effect or random effect for our data sets. Therefore, some econometrics tests like Hausmans test, to be explained later, are required. These tests are necessary in order to determine if the model for the data sets is fixed or random.

Result and Findings

The primary purpose of this study is to examine the overarching importance of the transmission mechanisms through which corruption affects economic growth across six West African countries, viz; Nigeria, Ghana, Togo, Cameroon, Chad and Cote d'Ivoire, between the periods of 1995 to 2014.

$$\begin{aligned} (-1) \text{ FDI}_{it} &= \theta + \theta' \text{ CPI}_{it} + \varepsilon \\ (-2) \text{ OPEN}_{it} &= \mu + \mu' \text{ CPI}_{it} + \varepsilon \\ (-3) \text{ GGDP}_{it} &= \beta_0 + \beta_1 \text{ CPI}_{it} + \beta_2 \text{ FDI}_{it} + \beta_3 \text{ OPEN}_{it} \end{aligned}$$

In the above models, (i) illustrates the number of countries varying: $i=1, 2, N$; (t) illustrates the number of years: $t=1, 2, \dots, T$. The estimation of this models are done with three methods, including combined data (pool data), Panel data with fixed effects, and Panel data with random effects

Preliminary Investigation

Before the estimations of the models were carried out, two unitroot test was carried out to test for the stationarity of the variables used. The Im-Perasan and Shin test and Fisher-type unit root test was used because majority of the test assume you have a balanced panel but the Im-Perasan and Shin test and Fisher-type test allow for unbalanced panels

The Im-Perasan and Shin Unit Root Test

Table 1 Im-Perasan and Shin Unit Root Test

Variable Name	Statistic (at level)	P-VALUE (at level)	Statistic (At first difference)	P-VALUE (At first difference)
GDP	-1.77	0.0384	-2.86	0.005
CPI	1.3523	0.9119	-1.682	0.037
FDI	-1.6872	0.0458	-3.642	0.006
OPEN	0.5462	0.7075	-1.248	0.029

Note: if the P-value is greater than 0.05 the variable is non stationary and if the P-values are less than 0.05 the variable is stationary.

Source: Stata/SE 12.0

The Im-perasan and Shin panel unit root test as above has the specification for a null hypothesis and an alternative hypothesis. The null hypothesis indicates the presence of a unit root process while the alternative indicates that the variable is stationary. Using the Im-Pesaran unit root test for GDP growth. GDP was stationary both at level and at first difference having a P-value of 0.0384, a t-statistics of -1.7701 at level, and a P-value of 0.005, a t-statistic of -2.86 at first difference which led to the rejection of the null hypothesis that GDP has unit root. The null hypothesis was also rejected for FDI indicating that FDI doesn't have unit root both at level and at first difference using the Im-Pesaran unit root test. FDI had a P-value of 0.0458, a t-statistics of -1.68 at level and a P-value of 0.006, a t-statistic of -3.642 at level and first difference respectively. Also using the Im-Pesaran unit root test for CPI, it was discovered that CPI was not stationary at level having a P-value of 0.9119 and t-statistics of 1.3523 but after taking the first difference it became stationary having a P-value of 0.037 and a t-statistic of -1.3523. Likewise Openness to trade wasn't stationary using the Im-Pesaran unit root test having a P-value of 0.7075 and t-statistics of 0.5462 but after taking the first difference it also became stationary having a P-value of 0.029 and a t-statistic of -1.248.

Fisher-Type Panel Unit Root Test
Table 2 Fisher-Type Panel Unit Root Test

Variable Name		Statistic (at level)	P-value (at level)	Statistic (at first difference)	P-value (at first difference)
GDP	Inverse Chi-square(12) P	34.9255	0.0005	20.5513	0.0574
	Inverse normal Z	-3.3365	0.0004	-2.0166	0.0219
	Inverse Logit(34) L*	-3.5991	0.0005	-1.9280	0.0311
	Modified Inv. Chi-square Pm	4.6796	0.0000	1.7455	0.0404
CPI	Inverse Chi-square(12) P	8.0423	0.7818	21.2481	0.0418
	Inverse normal Z	0.8879	0.8127	-1.8112	0.0306
	Inverse Logit(34) L*	0.8454	0.7981	-1.8423	0.0375
	Modified Inv. Chi-square Pm	-0.8077	0.7904	2.0003	0.0244
FDI	Inverse Chi-square(12) P	30.6501	0.0022	22.7126	0.0303
	Inverse normal Z	-2.2092	0.0136	-1.9038	0.0285
	Inverse Logit(34) L*	-2.7330	0.0049	-1.9720	0.0284
	Modified Inv. Chi-square Pm	3.8069	0.0001	2.1867	0.0144
OPEN	Inverse Chi-square(12) P	14.8795	0.2481	25.6918	0.0345
	Inverse normal Z	-0.4017	0.3439	-2.0101	0.0298
	Inverse Logit(34) L*	-0.2156	0.4153	-2.2973	0.0294
	Modified Inv. Chi-square Pm	0.5878	0.2783	3.1493	0.0197

Source: Stata/SE 12.0

Note: if the P-value is greater than 0.05 the variable is non stationary and if the P-values are less than 0.05 the variable is stationary.

The Fisher panel unit root test as above has the specification for a null hypothesis and an alternative hypothesis. The null hypothesis indicates that the panel contains unit root while the alternative indicates that the panel does not contain unit root. Using the Fisher-type unit root test for GDP growth. GDP growth was found to be stationary both at level and at first difference. This led to the rejection of the null hypothesis that GDP contains unit root both at level and at first difference since the P-values are all less than 0.05. The null hypothesis was also rejected for FDI indicating that FDI doesn't have unit root both at level and at first difference using the Fisher-type unit root test since the P-values are also less than 0.05. Also using the Fisher-type unit root test for CPI, it was discovered that CPI was not stationary at level but after taking the first difference it became stationary. Likewise Openness to trade wasn't stationary using the fisher-type unit root test but after taking the first difference it also became stationary

Results

The results of the pooled, fixed and random effects models appear in the following table. The role of each channel is estimated individually and then the effect of that channel is analysed when all variables are in the regression.

$$\begin{aligned} (-1) \text{ FDI} &= \theta_1 + \theta_2 \text{ CPI} + \varepsilon \\ (-2) \text{ OPENK} &= \mu_1 + \mu_2 \text{ CPI} + \varepsilon \end{aligned}$$

The equations (-1) and (-2) are attempting to find the indirect effects of corruption on growth through the channels of foreign direct investment, and openness to trade.

All the aforementioned models will be estimated by three methods including combined data (pool data), Panel data with fixed effects and Panel data with random effects, which are in following tables.

Table 3. The Estimation of Models (-1) and (-2) and With 3 Methods Including Pool, and Panel Data with Fixed Effects and Random Effects

Dependent Variable	Variable	Pooled	Fixed Effects	Random Effects
OPEN	CONSTANT	55.824 (0.000)	92.203 (0.000)	92.828 (0.000)
	CPI	7.1683 (0.029)	-7.4448 (0.024)	-6.4912 (0.040)
FDI	CONSTANT	0.2852 (0.253)	2.3884 (0.253)	0.7414 (0.598)
	CPI	1.1038 (0.017)	0.2447 (0.771)	0.9368 (0.084)

Source: Stata/SE 12.0

Note: The value in parentheses in above table shows the probability. To distinguish between fixed effects and random effects, the Hausman test is used.

Diagnostic Test and Interpretation

A hausman test is used to determine whether to use the fixed effect model or the random effect model. The results of the Hausman test are in the table below.

Table 4. Hausman Test for Model (-1) and (-2)

Hausman Test	The calculated Value of χ^2	Degrees of Freedom of χ^2	P Values	Judgment for the test
Model (3-2)	2.18	1	0.1400	H_0 is accepted
Model (3-3)	1.18	1	0.2766	H_0 is accepted

Source: Stata/SE 12.0

According to the above tables, the P values are all greater than 0.05 for all two models; as a result, the null hypothesis is accepted for all models. Therefore, the appropriate model for the two models is the random-effect model. In addition, the results of the coefficients of CPI θ 1, is significant at 10% and coefficient of CPI μ 1 is significant at both 5% and 10%, as the probabilities are 0.084 and 0.040, respectively. The p values demonstrate that the effects of corruption on foreign direct investment is negligible. Therefore for the countries in the panel used (namely Nigeria, Ghana, Cameroon, Ivory Coast, Chad and Togo), effects of corruption on foreign direct investment is negligible. This mentioned result aligns with the theoretical principles in chapter 2 presented by Wedman, Campos, Wei, and Gatti. In Chapter 2, I note that Wedman (1997) and Campos (2000) present that there is no evidence that corruption diminishes investment. They conclude the effect of corruption on investment depends on the kinds of corruption (good and bad), which are applied in different countries. It also depends on the predictability of corruption, which has a different level of three groups of countries, including advanced economies, less advanced economies, and East Asian countries. In some countries, corruption might increase investment, undermine investment, or have no effect on investment. In countries under the investigation in this study, corruption has no effect on investment, which is in line with the theories of Wedman and Campos (1997).

From the results obtained we can conclude that corruption has a negative effect on openness in countries under investigation in this study. From the results obtained CPI is significant at 5% and a unit increase in corruption decrease openness to trade by 0.694 percentage points for the countries in the panel (Nigeria, Ghana, Cameroon, Ivory Coast, Chad and Togo). Therefore in order to increase openness for the countries in the panel, measures have to be introduced which will reduce the menace of corruption. This is in line with the theory of Wei and Gatti (2000). In chapter two, it was explained that Wei concluded that the impact of corruption on open trade (openness) depends on the good and bad governance across countries. Gatti (2000) also examined the role of trade tariffs, bribery, and interaction between custom officials and importers on the process of effects of corruption on trade (openness) across countries. Thus, they concluded that open trade is influenced by corruption positively, negatively, adversely or naturally due to the good and bad governance, trade tariffs, and bribery, which play different role across countries. Therefore, since in this study openness is affected by corruption, it is consistent with the result of investigations, done by Wei and Gatti (2000). Also Torrez (2002), examines the relationship between trade and corruption to test the argument that restricted trade shifts resources from productive activities to rent seeking activities. This study shows a negative relationship between corruption and trade.

Table 5.
The Estimation of Model (-3) With Three Methods Including Pooled OLS and Fixed and Random Effects Models
Dependent Variable: GGDP

Variables	Pooled	Fixed Effects	Random Effects
CONSTANT	5.3116 (0.05)	-1.7246 (0.648)	3.0095 (0.513)
CPI	-0.5201 (0.552)	0.7282 (0.648)	-0.1433 (0.009)
OPEN	-0.0875 (0.764)	0.04893 (0.400)	0.0126 (0.761)
FDI	0.6179 (0.005)	0.5471 (0.013)	0.5364 (0.009)
R Square	0.1015	0.05	0.093
R Adjusted Square/Rho	0.0683	0.25	0.21
Wald Chi ²			6.85
Prob>Chi ²			0.000

Source: Stata/SE 12.0

Note: The value in parentheses in above table shows the probability.

Table 6 Hausman Test for Model (-3)
Dependent Variable: GGDP

Calculated value χ^2	P-value	Judgment about test
1.18	0.7577	H ₀ is accepted

Source: Stata/SE 12.0

Since p value is greater than 0.05, the null hypothesis was accepted. Consequently, the appropriate model for this study is random effects. As a result, the results of the coefficient of the random effects in accordance with above table are determined. Therefore, the model (-3) for the random Panel data, which are based on all coefficients of table 5 is as follows:

Model (-3)

$$GGDP = -0.1433 \text{ CPI} + 0.5364 \text{ FDI} + 0.0126 \text{ OPENK} + 3.0095 + w_{it}$$

$$T = \quad (1.1908) \quad (0.2067) \quad (0.0416) \quad (4.5963)$$

$$P = \quad (0.009) \quad (0.009) \quad (0.761) \quad (0.513)$$

Openness is found to be insignificant having a P-value of 0.761. A one unit increase in openness (one unit increase in Open) is associated with about 0.0126 percentage point increase in the growth rate of real GDP per year for the countries in the panel (Nigeria, Ghana, Cameroon, Ivory Coast, Chad and Togo).

FDI is also found to be significant having a P-value of 0.009.

Conclusion

Consistent with the evidence in the empirical literature, the analysis in this study has established a statistically significant effect of corruption on openness to trade in a sample of 6 African countries. The analysis provides evidence of a negative effect of corruption on openness to trade, suggesting that one of the channels through which corruption affects growth is through openness to trade. The results of this study suggest that increasing the well-being of the majority of citizens in African countries can be enhanced by reducing corruption. This means that the process of economic development can be achieved by using domestic resources without recourse to asking for external aid. After all, the growth effect of external aid is far less than the effect of corruption on growth. Instead of African countries asking for foreign aid to help in economic development, they could achieve the desired economic performance by reducing corruption through appropriate institutional reforms. This institutional reform will also lead to sustained long term economic growth.

Recommendations

1. Rent seeking opportunities in terms of import licenses should be reduced, thereby increasing openness to trade, providing increased competition, transparency, and efficiency to the market. This indeed addresses the issues related to the disruption of competition due to rent seeking opportunities.
2. Government should make policy changes that reduce the corruption both at the demand and supply side. From the demand side, this can be achieved by scaling down regulations and other policies such as tax incentives, and by making those that are retained as transparent and as nondiscretionary as possible; and from the supply side, corruption can be reduced by increasing public sector real wages, increasing incentives toward honest behaviour, and instituting effective controls and penalties on the public servants since corruption majorly takes place at the public sector.

References

- Abiodun, E. O. (2007). The effect of corruption and economic reforms on economic growth and development in Nigeria. *Journal of Social Sciences and Finance*, 2(1): 15-25
- Achebe, C. (1988). *The trouble with Nigeria*. Enugu: Fourth Dimension Publishers
- Acemoglu, D. & Verdier, T. (1998). Property rights, corruption and the allocation of talent: a general equilibrium approach. *Economic Journal*, 108
- Agbu, O. (2003). *Corruption and human trafficking: the Nigerian case*. West Africa Review
- Adewale, S. B. (2011). The crowding-out effects of corruption in Nigeria: An empirical study. *Journal of Business Management and Economics*, 2(2): 059-068
- Adewale, S. B. (2011).
- Acemoglu, D. & Verdier, T. (1998). Property rights, corruption and the allocation of talent: a general equilibrium approach. *Economic Journal*, 108, 450: 1381-1403
- Ade, A. O., Babatude, H. & Awoniyi, M. A. (2011). The relationship between Corruption, Foreign Direct Investment and Economic Growth in Nigeria. An empirical investigation. *Journal of Research in International Business and Management*, 1(9): 278-292
- Adsera, A., Boix, C. & Payne, M. (2003). Are you being served? political accountability and quality of government. *Journal of Law Economics and Organization*, 19 (2): 445-490
- Aliyu S.U. & Akanni, O. E (2008). *Corruption and economic growth in Nigeria*. MPRA paper No. 12504, 6 January 2009
- Aidt, T. (2009). *Corruption, institutions, and economic development*. Oxford Review of Economic Policy. 25, (2), 271-291.
- Akinpelu, S., Ogunseye, U., Bada, I. S. & Agbayangi, A. (2013). The socioeconomic determinants of corruption in Nigeria. *European Journal of Humanities and Social Sciences*, 19(1): 1-17
- Alesina, A., & Rodrik, D. (1994). Distributive politics and economic growth. *The Quarterly Journal of Economics*, 109(2), 465-490.
- Amundsen, I. (2000). *Corruption: Definitions and concepts*. Norway: Norwegian Agency for Development Cooperation, Michelson Institute
- Ayobolu, J. (2006). *EFCC, Corruption and the Due Process*. Segun Toyin Dawodu, USA

- Anyanwu, J. C. (2002). *Nigerian public finance*. Onitsha: Joaneel Publishers,
- Black, J (1997). *A Dictionary of economics*. Oxford University Press: New York.
- Bardhan, P. (1997). Corruption and development: a review of issues. *Journal of Economic Literature*. 35.(3), 1320-1346.
- Dike, V.E (2005). *Corruption in Nigeria: A New Paradigm for Effective Control*. *Africa Economic Analysis*. Retrieved on 1st August 2007 from <http://www.jsdafrica.com/Jsda/Summer1999/articlespdf/ARC%20-%20A%20Psychological%20Analysis%20of%20Corruption%20in%20Nigeria.pdf>
- Everhart, S., Martinez-Vazquez, J., & McNab, R. .M (2005). *Corruption Investment, and Growth in Developing Countries*. 96th Annual Conference on Taxation.
- EFCC (2005). *Effect of Corruption on Nigeria's Economy*. Nigeria EFCC Information Communication Technology Department. Abuja
- Ejikeme, J. (2013). *An appraisal of the Economic and Financial Crimes Commission and the war against corruption (1997-2007)*. society for research and academic excellence. 2013
- Freckleton, M. (2010). Export development policies in caricom: an assessment. *Global Development Studies*. 6,1-2, 149-163.
- I.C.P.C (2006). *Nigeria and Corruption*. Independent Corrupt Practices and Other Related Offences Commission
- Idomeh, A. O. (2006). *Public Finance: A Modern Approach*. Head Mark Publishers Limited, Benin City
- Gbenga, L. (2007). Corruption and development in Africa: challenges for political and economic change. *Humanity & Social Sciences Journal* 2 (1): 01-07
- Gould, D.J., & Amaro-Reyes. J.A (1983). *The effects of corruption on administrative performance*, Staff Working Paper No. 580, Washington, DC: The World Bank.
- Gujarati, O. (2004). *Basic econometrics, fourth edition*. The McGraw Hill Company
- Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty?. *Economics of Governance*, 3 (1), 23-45.
- Gatti, R. (2000). *Corruption and Trade Tariffs, or a Case for Uniform Tariffs*. World Bank Policy Research Working Paper, No.2216, November.

- Greene, H. W. (2008). *Econometric analysis seventh edition*, Google Books.
- Huntington, S.P. (1968). *Political order in changing societies*. New Heaven: Yale University Press.
- Hisamatsu, Y. (2003). Does foreign demands affects corruption?. *Applied Economic Letters* 10,1: 1-2
- Kaufmann, D. (1997). *Corruption: Some myths and facts*. Foreign Policy, Summer 1997, 114-131
- International Centre for Economic Growth (1999). *ICEG Information Brief 6, Causes and effects of Corruption*. Nairobi, 1999.
- Kwabena, G. B. (2001). Corruption, economic growth, and income inequality in Africa
- Josh, M. (2014). Corruption, Income Inequality, and Subsequent Economic Growth
- Jens, C. A. & Odd-Helge, F. (2001). Corruption: A Review of Contemporary Research. Transparency International Working Paper
- Karl, O. (1997). Isham, et al. (2004). *The varieties of resource experience: how natural resource export structures affect the political economy of economic growth*. Middlebury College Economics (Vermont) Discussion Paper NO. 03-08R.
- Kaufmann, D. & Siegelbaum, P. (1997). Privatization and Corruption in Transition Economies. *Journal of International Affairs* 50(2): 519-558
- Khan, M.H. (1996). *A typology of corrupt transactions in developing countries*. IDS Bulletin
- Konie, G. (2003). National Reconciliation, *The Post; A Zambian Newspaper*, Wed. July 23. No. 2471, pp: 11
- Leff, N. H. (1964). Economic development through bureaucratic corruption. *American Behavioral Scientist*, 8/3 (November), pp. 8-14.
- Lui, F.T. (1985). An Equilibrium Queuing Model of Bribery", *Journal of Political Economy*. 93 (4) 760-781.
- Mauro, P. (1995). Corruption and growth. *The Quarterly Journal of Economics*, 110(3), 681-712.
- Mauro, P. (1997). Why Worry About Corruption, *IMF Publications: Economic Issues*, 6.

- Mauro, P. (1998). Corruption and the composition of government expenditure. *Journal of Public Economics* 69 (2): pp.263-279.
- Méon, P. & Weill, L. (2010). Is corruption an efficient grease?. *World Development*, .38.(3), 244-259.
- Mina, B. & Léonce, N. (2008). Corruption and Growth: Exploring the Investment Channel, African Economic Conference organized by the African Development Bank and the United Nations Economic Commission for Africa in Addis Ababa, Ethiopia, November 15-17, 2007.
- Mo, P.H. (2001). Corruption and economic growth, *Journal of Comparative Economics*, 29 (66), 7-9.
- Murphy, K. M. et al, (1993). 'Why is Rent-Seeking So costly to growth? *American Economic Review*. 83, 2:409-414.
- Muhuda, P. (2013). Investigating the relationship among corruption, Poverty and economic growth in Nigeria. *Journal of Banking*, 4(2): 15-30
- Muhammad, T M. (2014), Corruption and Trade. *Journal of economic integration* .29, (4) 759-782
- Ogunmuyiwa, .M. & Segun, A. (2012). An Econometric Analysis of the Impact of Corruption on Foreign Direct Investment", *Journal of African Macroeconomic Review*. 2 (1) (2012).
- Osimen, et al (2013). *An assessment of corruption in the public sector in Nigeria*, CS Canada. 9. (5) 87-97
- Otite, O. (2000). *Corruption against the Norms of African life" in O. Femi (ed.) Effective and efficient Implementation of Nigeria's Recent Anti-corruption legislation*
- Pande, R. (2008). Understanding political corruption in low income Countries in: T. Schultz and J. Strauss (eds.). *Handbook of Development Economics* (4), Elsevier.
- Paldam, M. (1999). *The big pattern of corruption: economics, culture and seesaw dynamics*. Working Paper, No.1999-11, Department of Economics, University of Aarhus.
- Ribadu, M. N (2003). *Economic Crime and Corruption in Nigeria: the Causes, Effects, and efforts aimed at combating these vices in Nigeria*. Paper presented at the Monaco World Summit 5th International Summit on Transnational Crime Monte Carlo 23rd and 24th October 2003

- Rotini, E. M., Obasaju, B., Lawal, A. D. & Ise, O. J. (2013). Analysis of Corruption and Economic Growth in Nigeria. *Afro Asian Journal of Social Sciences*, 4 (4.2): 1-19
- Rahman, A, K. Gregory, P. & Kapil. K. (1990). *The effects of corruption implications for Bangladesh*. Policy Research Working Papers WPS2479, Washington D.C.: The World Bank
- Reinikka, R. & Svensson, J. (2004). Local Capture. *Quarterly Journal of Economics*, .119.(2) 679-705.
- Reinikka, R. & Svensson, J. (2005). Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda, *Journal of the European Economic Association*,.3 (2), 259-267
- Sachs, G. (2007). Corruption Remains Nigeria's Long Term Challenge. *The Daily Independent Newspapers Tuesday*, 24 April 2007
- Sandholtz, et al (2003). *International Integration and National Corruption*, *International Organization*. 57 (4) 761-800
- Sanyal, P. & Samanta, A. (2008). Effects of perception of corruption on outward US foreign direct investment , *Global Business and Economic Review*, 10: 123-140
- Salisu, M. (2000). *Corruption in Nigeria*. Lancaster University Management School Working Paper 2000/006. The LUMS Working Papers series
- Suzuki et al (2013) Intensity of trade with the EU and corruption in Africa. *Journal of Economic Integration*. 28 (4) 610-630
- Tanzi, V. (1998). Corruption around the world: Causes, consequences, scope, and cures. IMF Staff Papers, 45(4), 559-594.
- Tanzi, V. & Davoodi, H. (1997). *Corruption, Public Investment and Growth*. IMF Working Paper, WP97/139. International Monetary Fund.
- Tevei, F. N., Albert, C. P. & Charles, S. (1986). *A policy-oriented theory of corruption*. *American Political Science Review*, published in United State of America. University of Michigan Flint.
- Torrez, jimmy(2002). The effect of openness on corruption. *Journal of International Trade and Economic Development*. 11 (4) 387-403
- Transparency International (1994-2005). *Corruption Index*. Various series

- Treisman, D. (2000). The Causes of Corruption: A Cross-National Study. *Journal of Public Economics*.76.(3), pp.399–457.
- UNDP, (1997). *Corruption and good governance*. United Nations Development Programme Discussion Paper 3.
- United Nations Global Programme Against Corruption. (2001). Anti-Corruption Toolkit.
- Wedman, A. (1997). Looters, Rent-Scrapers, and Divided-Collectors: Corruption and Growth in Zaire, South Korea, and Philippines", *The Journal of Developing Areas*, Vol.31, pp.457-478.
- Wei Shang-Jin (1997). Corruption in economic development: beneficial grease, minor annoyance, or major obstacle? Policy Research WP WPS 2048. Washington DC: World Bank.
- Wei, S. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics*, 52(1), 1-11
- Wei, S-J (2001). *Bribery in the Economies*, Working Paper, Brookings.
- Wei, S-J (2000). *Natural openness and good government*. Nber Working Paper 65-77.
- Woodridge, J.M (2011), *Econometrics Analysis of Cross Section and Panel Data* (2nd Edition). MIT Press
- World Bank. (2000). *The Anti Corruption in Transition: A Contribution to the Policy Debate*. Washington, DC: The World Bank.
- World Bank (1996). *Nigeria: Prospects for Development*, Country Operations Division. West Central Africa Department, World Bank. www.odcep.org/pdf/crime/toolkit/fitof7.pdf
- United Nations and African Union (2013). *Combating corruption and improving governance in Africa. Regional anticorruption program for Africa (2011-2016)*.
- Ugur, M. & Dasgupta, N. (2011), *Evidence on the economic growth impacts of corruption in low-income countries and beyond: a systematic review*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. www.transparency.org/speeches/pe.
- World Bank Report (2008). *World development indicators*. www.worldbank.org www.noipolls.com