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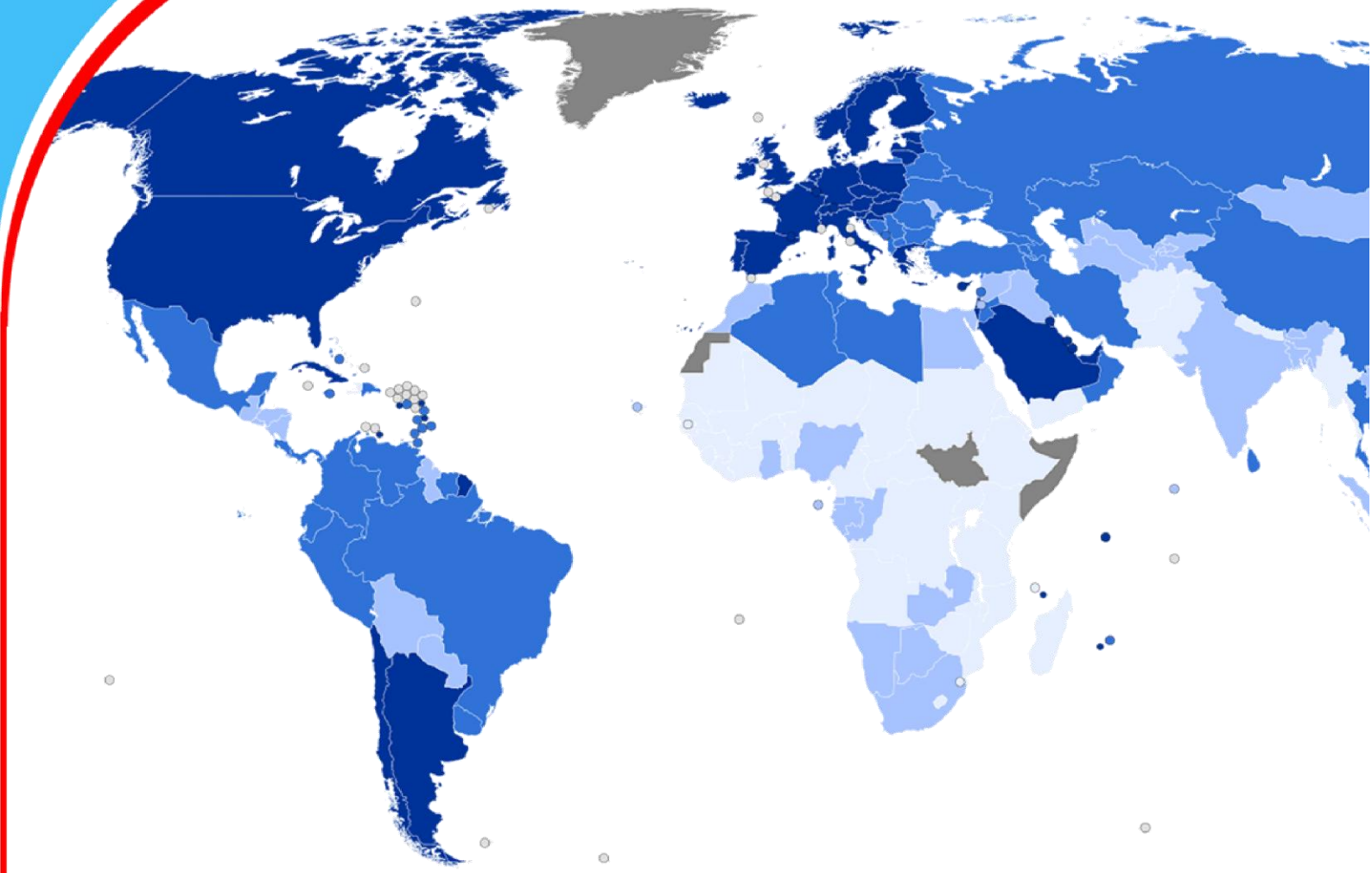

DOES CORRUPTION MATTER FOR UNEMPLOYMENT? INVESTIGATING THE ROLE OF BRIBERY, FAVOURITISM AND NEPOTISM CORRUPT PRACTICES IN EMPLOYMENT, EVIDENCE FROM NIGERIA.

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DOES CORRUPTION MATTER FOR UNEMPLOYMENT? INVESTIGATING THE ROLE OF BRIBERY, FAVOURITISM AND NEPOTISM CORRUPT PRACTICES IN EMPLOYMENT, EVIDENCE FROM NIGERIA

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Abstract

Purpose: Is corruption a source of unemployment in Nigeria? Do corrupt practices such as bribery, favouritism and nepotism play a role in employment in Nigeria? Through the aforementioned questions, the objective of this study was to propose good policies that can enable policy makers to reduce the high unemployment rate in Nigeria.

Methodology: Through Johansen co-integration, Granger causality and impulse response, our empirical result used time series data collected from Central Bank of Nigeria (2019) statistical bulletin and Bureau of Statistics (2019) covering the period of 1980-2018 reveal that corruption is a source of unemployment.

Findings: Specifically, corruption is positively related to unemployment, corruption granger cause unemployment, and unemployment positively responds to corruption respectively. In other words, through our logistic regression model our empirical investigation reveals that bribery, favouritism and nepotism play significant role in employment in Nigeria.

Unique Contribution to Practice and Policy: To reduce the high rate of unemployment, setting up an independent anti-corruption body to reduce corruption should be the priority of political and economic decision makers. This will also reduce the rate of bribery, favouritism and nepotism in public places.

Keywords: *Corruption, unemployment, bribery, favouritism, nepotism.*

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1: INTRODUCTION

The issue of factors that influence unemployment and the policies to be adopted to prevent it are not new issues in economies. Early scholars such as Nickel (1979), Mincer (1991) and Rendahl (2016) in the recent time have in their works been able to develop economic, institutional and social policies to reduce unemployment rate. Unemployment rate portrays a macro-economic condition for any country and the major concern of economic decision makers is to reduce it (Dope & Lelang, 2018). In 2017 the employment rate in the developed countries started to improve as it was before the global financial crisis of 2007, but in the developing countries of the Sub-Saharan Africa reverse was the case despite the effort of some government (Boz & Tesar, 2018). This has become a continuing problem in SubSaharan African countries in general and Nigeria in particular. Right from the days of military rule to this current democratic rule in Nigeria, the issue of unemployment continue to rise due to failures of some government policies. For instance, unemployment in Nigeria rose from 5.10% in 2009 to 22.6% in 2018 (Knoema, 2021). Since the global financial crisis of 2007, the issue of unemployment has attracted the attention of research scholars (Katz, 2014). However, to stabilize their economy the decision makers in the affected countries seek for ways of eradicating it. This propels researchers in those countries to investigate and analyse the causes of unemployment in their area. To proffer solution to unemployment in any geographical entity, it is pertinent to identify the causes (O'Reilly et. Al., 2015). What could be responsible for the high rate of unemployment in Nigeria? And how can we take care of unemployment that arises because of corrupt practices of bribery, favouritism and nepotism.

In an attempt to provide a panacea to the first question, theoretically there has been plethora of controversies about the causes of unemployment. Neo-classical theory sees unemployment as a trade-off between supply of labour and demand for labour. Specifically, Keynesian reveals that unemployment is as a result of insufficient demand for labour (Dope & Lelang 2018). Keynesian theory further reveals that inefficient public policies as well as low mobilization of public resources to trigger expansionary macro-economic variables causes unemployment (Rendahl, 2016). Another determinant of unemployment is human capital, the more one is educated, the less is the probability of him being unemployed (Condratov, 2014). Another factor that can increase unemployment is poor distribution of income and can as well affect economic activity (Bechir, 2016). The issue of corruption influencing unemployment is dated back to the work of Myrdal (1968), and as an old phenomenon it causes unemployment both in the developed and developing countries (Ali & Saha 2016). As a justification of our study, it is expected that Nigeria as an oil producing country should have high level of employment. However, this is not the case, notwithstanding the avalanche of resources Nigeria has, greater number of her citizens is unemployed (Aiguosatile & Lambert, 2020). Thus, to reduce the high level of unemployment in Nigeria, the country must fight and get rid of corruption.

Despite the multitude of research works on the cause of unemployment, one of the limitations of the previous scholars such as Enofe et al., (2016), Dope and Lelang (2018) among others, is that they did not undertake the influence of corruption on unemployment in the long run, short run as well as how the latter responds to the former over a long period of time. This could help policy makers to know the period where the impact of corruption on unemployment is severe to propose and execute economic and institutional policy to fight corruption and reduce

unemployment. In addition to the aforementioned, majority of those who are educated are not able to get job, whereas good number of those who are not qualified or not the best applicants because they are highly connected and rich are able to get job were over looked in the previous studies. This could help to propose policies to reduce bribery, favouritism and nepotism in employment positions in Nigeria.

Thus, to help reduce unemployment in Nigeria and fill the gap in the literature, our study analyses in one hand the impact of corruption on unemployment, and on the other hand, the research seeks to investigate the role of bribery, favouritism and nepotism in employment. To achieve the aforementioned objectives this study adopts Johansen co-integration, Granger causality and impulse response function methods over a period of 1980-2018 using time series data from Central Bank of Nigeria Statistical Bulletin (2019). This paper further adopts logistic regression model to investigate the role of corruption practices in employment using survey data. The investigation reveals that the control of corruption will reduce the level of unemployment and employment corrupt practices in Nigeria.

2: Methodology 2.1: Research design

The research design of this study was predicated on ascertaining whether corruption is a source of unemployment both in the short and long run, as well as identifying the response of unemployment to corruption. Furthermore, this research design is organised to capture on the influence of bribery, favouritism and nepotism corrupt practices on employment.

2.2: Target population

The area and the group of individuals that this research intended to cover were Nigeria and Lagos State 2020 local government employee. Nigeria as a target population was adopted to ascertain whether corruption is a source of unemployment in the short and long run, as well as in ascertaining the response of unemployment to shock on corruption. On the other hand, Lagos State 2020 local government employee in the 20 local government area was used as a target population to investigate the role of bribery, favouritism and nepotism in employment.

2.3: Method of data collection

To ascertain whether corruption is a source of unemployment, time series data (secondary data) covering the period of 1980-2018 from Central Bank of Nigeria (2019) statistical bulletin and National Bureau of Statistics (2019) are used. While primary data collected via survey (questionnaire) is used to investigate the role of bribery, favouritism and nepotism in employment. In collecting the primary data, a sample size of 300 employees were interviewed and those interviewed were selected by simple random sampling.

2.4: Method of data analysis

The methods of data analyses adopted in this research are explained in details as follows.

2.4.1: Unit root tests equations: Augmented Dickey Fuller test and Philip Perron test

Equation 1 below is Augmented Dickey-Fuller Test

Journal of Developing Economies
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Vol.3, Issue 1, pp 32 - 50, 2021
www.ajpojournals.org

$$y_t = \alpha_0 + \alpha_1 + y_{t-1} + \sum_{i=1}^{k} \alpha_i \Delta y_{t-i} + \varepsilon_t \qquad (1)$$

The left hand side of the equation is the Dickey-Fuller unit root test on autoregressive process of order 1 with linear time trend. While the second part of the equation reveals that the standard Dickey-Fuller test has been augmented by Δy_{t-i}. Therefore, the t-test and the regression of the equation is called Augmented Dickey Fullers test.

In Equation 1, Δy stands for differenced variable, a_0 is the intercept, t represents the linear trend, while Δy_{t-i} stands for the first difference, i is the ADF lags selected, α_i is the number of lags in the ADF regression and ε_t stands for the error term that adjusts errors of auto correlation. The k lagged difference terms, Δy_{t-i} are used in complex autoregressive process and the value of k is set so that the error term do not correlate and is assumed to be homoskedastic. In summary, the presence of serial correlation in the Dickey-Fullers test affects results and led to the introduction of Augmented Dickey-Fullers test which suggest adding of lags to overcome the residuals of serial correlation (Dickey & Fuller, 1979).

For comparison sake, this study also conducted Phillips-Perron (PP) unit root tests. PhillipsPerron differs from the Augmented Dickey-Fullers test in how the issues of serial correlation and heteroscedasticity in error are handled. For instance, Augmented Dickey-Fullers test uses a parametric auto-regression whereas Phillip-Perron test uses non parametric. It also ignores serial correlation and focuses on heteroscedasticity. The non parametric of Phillip Perron assumes there is no functional form of error process due to its application to a large sample (Lavan & Paul, 2004, p. 29).

$$\Delta y_t = \beta' D_t + y_{t-1} + u_t \qquad (2)$$

From Equation 2 above, Phillip-Perron test corrects heteroscedasticity in the errors u_t by modifying the test statistics (Lavan & Paul, 2004). Unlike in Equation 1, Equation 2 does not have lag length because Phillip Perron test does not specify lag length for the test regression.

2.4.2: Co-integration and error correction model

When variables are not stationary in their levels but integrated in their first difference, it means they are integrated at order one, and is represented as *I* (1). If they are integrated at second difference, it means they are integrated at order 2, and is represented as *I* (2). In a nutshell, it shows that variables that are not stationary at levels or first difference can cointegrate when one or more variables that are stationary are combined. When the variables co-integrate, it means there exists a long run relationship among the co-integrating variables.

Journal of Developing Economies
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Vol.3, Issue 1, pp 32 - 50, 2021

www.ajpojournals.org

$$\Delta X_t = \mu + \sum_{i=1}^{p-1} \Gamma i \, \Delta X_{t-i} + \Pi X_{t-1} + \varepsilon_t \quad (3)$$

in the equation is (nx1) vector of time series are for coefficient matrices, Δ represents a difference operator and ε_t is error term. In summary, coefficient matrix Π shows the impact as well as the long run relationship and has ranks base on the significance of Eigen values. When there exists no co-integration all the rows in the Π-matrix will be zero and when it is non zero it means stationary or co-integration. The rank of the co-integration is tested with trace and maximal Eigen value tests. Trace tests the null hypothesis of r cointegrating vectors against the alternative hypothesis n. Maximum Eigen value on the other hand tests the null hypothesis against the alternative r+1 (Erik & Par, 2007, p. 6). According to Bo (2008, p. 14) trace test is good because it is more robust to skewness and excess kurtosis and can be adjusted for degrees of freedom which is important in small observation. Equation 4 below is the error correction model for model 1 derived from Equation 3 above.

Equation 3 above is error correction model. X_t $(X_{1t}, X_{2t}, X_{3t}, \ldots X_{nt})$ and μ for constant term. $\Gamma and \Pi$

$$UN_t = \delta_0 + \sum_{i=1}^{n} \delta_{1i} \Delta UN_{t-i} + \sum_{i=1}^{n} \delta_{2i} \Delta CPI_{t-1} + \sum_{i=1}^{n} \delta_{3i} \Delta LGDP_{t-1} + \lambda_1 ECM_{t-i} + \varepsilon_{5t} \quad (4)$$

In Equation 4 above, δ is the coefficients, t represents the time variants, ε_{1t} is the residual for the time series, while the ECM_{t-1} is the error correction term. λ_1 stands for 1st canonical correlation and the t-1 represents the combinations in all the variables in the co-integrating relationship that yield the largest correlations of the difference operators (Δ). The canonical correlation is tested via trace and maximum Eigen value, Erick and Par (2007, p. 5). The statistical significance of coefficients of the error term in Equation 4 above shows the rate at which the variables are brought into equilibrium. The model will be normalised on UN which captures short run dynamics. **2.4.3: Granger causality test**

This study also carried out Granger causality test to ascertain the direction of causality between corruption (CPI) and unemployment (UN). In Granger causality test, cause is influenced by actions in the past. Granger causality tests the lag values of the independent variables whether it plays a significant role in explaining the dependent variables with its lag values. In Granger causality test, movement could be unidirectional or bidirectional. The causality regression of the two variables (dependent=UN and independent=CPI) are presented in Equation 5 and 6 below.

$$UN_t \quad \alpha_1 UN_{t-1} \quad \alpha_2 UN_{t-2} + \alpha_3 UN_{t-3} = \quad +$$
$$+ \ldots + \beta_1 CPI_{t-1} + \beta_2 CPI_{t-2} + \beta_3 CPI_{t-3} \ldots + \varepsilon_{1t}$$

…… (5)

$$CPI_t = \emptyset_1 UN_{t-1} + \emptyset_2 UN_{t-2} + \emptyset_3 UN_{t-3} + \ldots + \delta_1 CPI_{t-1} + \delta_2 CPI_{t-2} + \delta_3 CPI_{t-3} \ldots + \varepsilon_{2t}$$

…… (6)

2.4.4: Model and its Basic Expectation, hypothesis, research questions and description of variables.

Journal of Developing Economies
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Vol.3, Issue 1, pp 32 - 50, 2021

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The model of this study estimates the impact of corruption and economic growth on unemployment in Nigeria.

$$UN_t = \beta_0 + \beta_1 CPI_t + \beta_2 LGDP_t + \mu_t \quad (7)$$

Where UN_t = Unemployment

CPI_t = Corruption Perception Index (proxy for corruption)

$LGDP_t$ = Gross Domestic Product (proxy for economic growth)

β_0 = Constant Term

$\beta_1, .\beta_2,$ = Coefficients

μ_t = Error Terms assumed to have constant variances and normally distributed

Where UN is the dependent variable and the regression of equation 4 above normalises on it. The basic expectations of the variables used in equation 7 are that corruption will be positively related to unemployment. While economic growth will be negatively related to unemployment to affirm that corruption fans the ember of unemployment in Nigeria. The model objective is to estimate the impact of corruption on unemployment.

Description of variables

Unemployment: is measured as the percentage of yearly unemployment in Nigeria and is represented by the acronym (UN)

Corruption: is measured as the percentage of yearly corruption perception index of Nigeria represented by the acronym (CPI)

Economic growth: Nigeria's gross domestic product divided by implicit price deflator, represented by the acronym (GDP)

In the survey, the questionnaire of the study yielded good number of valid questions with responses. During the fieldwork, those interviewed provided responses to the following questions in the questionnaire.

"Were you employed recently by the local government" Yes or No answers were provided. "Did you spend money during the recruitment process? Yes or No answers were provided. "Were you related or come from the same zone with the local government chairman?" Yes and No answers were provided.

"Do you belong to the same party with the local government chairman or voted for his party during the last local government election?" Yes and No answers were provided

The proxy for bribery is spending money during recruitment exercise, the proxy for nepotism is job selection base on the applicant zone or come from the same local government with the chairman, while the proxy for favouritism is job selection base on party members or voted for the party in power. As presented in Table 1 below, out of the 300 people that were newly employed by the local government that we interviewed, 114 were employed after paying some money (bribery), 91 were employed because they are from the same zone/same local

Journal of Developing Economies
ISSN 2790-6957 (Online)
Vol.3, Issue 1, pp 32 - 50, 2021

government area with the chairman (nepotism), while 95 were employed because they belong to the same party and voted for the party in power (favouritism).

Table 1: Corrupt practices in giving employment in Nigeria

Corrupt practices	No. Of applicants employed via corrupt practices
Bribery	114
Favouritism	95
Nepotism	91
Total	**300**

Source: Author's survey result

Table 2 measures the variables (bribery, favouritism and nepotism) and "yes" answers in all are coded 1, while "otherwise" answers are coded 0.

Table 2: Variables measurement

Employment of new workers after indulging in corrupt practises 1 = Yes, Otherwise = 0
Bribery for employment, 1 = Yes, 0 = Otherwise
Favouritism in employment, 1 = Yes, 0 = otherwise Nepotism in employment, 1 = Yes, 0 = otherwise

Econometric Model of Probability for Employment

Employment = Constant + bribery + favouritism + nepotism + μ_t

To investigate this model, this study utilized the logistic regression model. When measuring Y data from the survey question, if the candidate succeeded in getting employment by paying money (bribery) is coded 1.

If the candidate secured a job because he is a member of the same party or voted for the party (favouritism), is coded 1.

Lastly, if the candidate get job because he comes from the same zone or same local government with the chairman (nepotism), is coded 1.

This research estimates the coefficients (Y) by using the model below.

Where Y denotes employment, therefore employment of applicants after indulging in corrupt practices is equal to $\beta_0 + \beta_1$(bribery) + β_2(favouritism) + β_3(nepotism) + μ_t

Research hypotheses

1. Corruption is likely to have positive influence on unemployment in the long run in Nigeria.
2. Corruption is likely to cause unemployment in the short run in Nigeria

Research questions

1. Do bribery, favouritism and nepotism corrupt practices influence employment in Nigeria?
2. Does unemployment respond positively to shock from corruption in Nigeria?

3: Literature review

Lipset and Lenz (2000) opine that corruption started many years in the past and that even in the ancient kingdom the law was against it because it destroys every sector of the economy. They further reveal that corruption has no bounds and that it has negative consequence irrespective of country, colour, age and sex. They argue that corruption is brought by those in government who love money, misuse the power given to them by the people and went further to bring their relatives to enviable positions they do not qualify for. Whereas those qualified for the positions remained unemployed because they do not have or know anybody in government.

Bechir (2016) investigated the relationship between corruption practises and youth unemployment in Arab countries. This study utilizes a system GMM approach that simultaneously account for the dynamic effect between perceived bribery/corrupt practices among officials and the youth unemployment. The study found that an increase in the rent seeking behaviour among government officials when granting job opportunity in the public sector increases unemployment rate among young and educated job seekers. The study further revealed that due to absence of efficient control and monitoring mechanisms that large number of work force were forced to pay the price (bribe) to secure employment.

Dope and Leleng (2018) investigated the impact of corruption on unemployment in SADC countries for the period of 2007-2016 using panel vector auto-regressive model. Result suggests that corruption is the main factor that causes youth unemployment in SADC countries. Enofe et Al., (2016) analyzed the relationship between corruption and unemployment in Nigeria, using ordinary least square method. The study found that there is an insignificant positive relationship between corruption and unemployment.

The pitfall with the above mentioned studies is the homogeneous assumption of the impact of corruption on unemployment. This assumption is not realistic because countries have different cultures, laws, social and economic factors that can affect empirical result. Therefore this study specific to Nigeria fills a gap in literature. First, this study investigates the impact of corruption on unemployment both in long run and short run and goes further to investigate how unemployment respond to corruption over a period of time. Furthermore, unlike previous studies, this study in line with the theories of neo-patrimonialism and prebendalism analyses the role of bribery, favouritism and nepotism (as tools of these theories used as economic gains for the officials) in employment in Nigeria, thereby contributes to theory and literature. To practise and policy makers, this study gives a signal showing that corruption causes unemployment. This study further contributes to literature by evidencing how bribery, nepotism and favouritism have been the determinant factors for economic position at the expense of merit.

4. Theories of corruption

Theories of corruption is traced to Huntington (1968) who opines that in the process of modernising societies to improve their political and economic development it triggers

inequality, political institution and corruption which might be defined simply in terms of the use of public power to actualize selfish interest (Iyada, 2012 p.41). Adefulu (2007) reveals that modernization theorists explain that the causes scale, incidence of corruption and corrupt practices in the pre-colonial African countries in terms of the logic of patrimonialism, neopatrimonialism, prebendalism and patro-clientalism as an extractive corruption in the continent is one of the unsavoury arrant aftermath of grafting in modern political structure and processes on indigenous people of Africa which hitherto exist on fairness.

Iyada (2012) explains patrimonialism, prebendalism and patro-clientalism as follows. Patrmonialism is a situation when all power flows directly from the leader and the economic right and authority is treated as privately appropriated economic advantages. Prebendalism means the appropriation of state office by notably elected officials and government workers and the diversion of state resources to serve themselves, their cronies, ethnic and other identity group. Patro-clientalism is a situation based on the relationship of client to patron with client giving pecuniary support of inducement in exchange of some benefit or position or jobs to be received.

The issue of corruption in Africa and Nigeria in particular is the result of the deviation of behaviour of official from the accepted norms due to effective political institution is not in place which makes the political officials to abandon their roles for personal gains (Adefulu, 2007). Huntington tried to reveal the orthodox theories of corruption by presenting the origin and attempted to justify it based on the selfish reasons of office holders in terms of political underdevelopment and private gift giving that are predominant in patrimonial societies. Though, the argument of patrimonial theory might sound plausible but Huntington showcase concrete reasons about the causes and prevalence of corruption (Iyada, 2012). Consequently, there emerges the new concept of the theory of corruption known as neo-patrimonialism. Some of the futures of neo-patrimonialism are:

i. Officials hold positions in bureaucratic setting with defined powers.
ii. But they exercise their powers in the private property relationships of the official with other members of the society in lieu of exercising it as a form of public service.
iii. By so doing it falls into patrimonial pattern of vassal and landlord in lieu of relational legal subordinate/superior official behaviour.
iv. The personal status in lieu of performing official functions.
v. The relationship between officials and clients is personal subordination.
vi. Official sees or use their position as a personal fiefdom and collect bribes and appoint relatives (nepotism) or favoured groups (favouritism).
vii. The inability of subordinate to take decision without the superior approval.

These features are mostly seen in developing countries and as such the reason why scholars argue that neo-patrimonialism as a feature of developing countries causes corruption in those countries (Iyada, 2012). However this is controvertible because the aforementioned characteristics are found in some developed states like North America. According to Aguhamah (1999), the theory of prebendalism as another theory of corruption has the following

Journal of Developing Economies
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Vol.3, Issue 1, pp 32 - 50, 2021

www.ajpojournals.org

characteristics: (i)The return of loyalty (ii) the loyalty is from patronage and group within the society (iii) the major aim of the officials is his benefit and gains for his supporters (iv) this gain could be political, economic and social in nature.

5: Results and Discussions 5.1: Unit root result Table 3: Unit root test result

	Dickey-Fuller test			***Phillip Perron test***		
variable	**T. stat. (prob.) At level**	**T. stat. (prob.) At 1st diff.**	**T. stat. (prob.) At 2nd diff.**	**T. stat. (prob.) At level**	**T. stat. (prob.) At 1st diff.**	**T. stat. (prob.) At 2nd diff.**
UN	2.157983	-4.803994	-5.174458	1.710936	5.767492	-13.27746
	(0.2291)	(0.0021)	(0.0016)	(0.3193)	(0.0004)	(0.0000)
CPI	-1.422861	-4.300031	-3.779603	-1.422861	-4.331110	-9.807096
	(0.5449)	(0.0053)	(0.0176)	(0.5449)	(0.0050)	(0.0000)
LGDP	-1.470713	-1.687403	-4.154643	0.941244	-1.687403	-4.155650
	(0.5202)	(0.4171)	(0.0077)	(0.7471)	(0.4171)	(0.0076)

Source: Author's calculation using E-View 8.0

Results from Table 3 show that all the variables are non stationary at level both in the Augmented Dickey Fuller test and Philip Perron test with non-significant T- statistics and Pvalues greater than 0.05. All the variables are stationary at first difference with the exception of economic growth (LGDP). However, all the variables are stationary at second difference both in the Augmented Dickey Fuller test and Philip Perron test. At second difference all their T-statistics are significant with P-values less than 0.05.

5.2: Johansen Co-integration Result

Table 4 below shows that in both the trace and maximum-eigen value tests their statistics are greater than the critical values with p-values less than 0.05, which indicates that long run equilibrium relationship exists among the (UN, CPI and LGDP) co-integrating variables.

Table 4: Johansen co-integration result (Series: UN, CPI and LGDP)

Hypothesised No. Of Co-integrating Equation (CE)	**Trace Test**	**Maximum-**	**Value Test**

Journal of Developing Economies
ISSN 2790-6957 (Online)
Vol.3, Issue 1, pp 32 - 50, 2021
www.ajpojournals.org

	Trace statistics	Critical Value P < 0.05	Maxi-Eigen Statistics	Critical Value P < 0.05
None *	39.01942	29.79707	22.88120	21.13162
At most 1 *	16.13821	15.49471	15.52623	14.26460
At most 2 *	4.611981	3.841466	4.611981	3.841466

Note * implies 3 co-integrating equations with statistics significant at p < 0.05

Source: Author's calculation using E-View 8.0

Long run equation result

$UN_t = 38.5047CPI_t + -12.5789LGDP_t$ (8)

(0.14993) (0.15789)

Source: Author's calculation using E-View 8.0

Table 5: Testing hypothesis 1

H_0	Corruption is not likely to have positive influence on unemployment in the long run in Nigeria	Measured with multivariate cointegration.
H_1	Corruption is likely to have positive influence on unemployment in the long run in Nigeria	

Results from the long run equation show that corruption exerts positive impact on the dependent variable by contributing 39% to unemployment in Nigeria. In the other hand, LGDP proxy for economic growth has negative impact on unemployment which suggests that economic growth does not cause unemployment. Thus, the null hypothesis which states that corruption is not likely to influence unemployment is rejected, while the alternative hypothesis which states that corruption is likely to influence unemployment is accepted. The investigation shows that the long run relationship between corruption and unemployment is positive and significant. Our result is in line with the findings of Dope and Lelang (2018). This result also suggests that corruption matters for unemployment in Nigeria. **5.3: Vector error correction result**

Journal of Developing Economies
ISSN 2790-6957 (Online)
Vol.3, Issue 1, pp 32 - 50, 2021

www.ajpojournals.org

Table 6: Vector error correction r esults

Variable	Coefficient	Std. Error	t-statistics
Constant	-0.107396	2.97880	-0.03605
ΔCPI	-0.002298	0.00055	-4.18095
ΔLGDP	-7.95E-06	6.4E-06	0.72413
ΔUN (-1)	-0.332798	0.28114	-1.5373
ΔCPI (-1)	0.352696	0.18570	1.89913
ΔLGDP (-1)	0.398095	0.34724	1.14645
$ECM(1)$	-0.30458	0.01692	-2.80027

R-squared	0.328764	Mean dependent	1.366667
Adj. R-squared	0.060270	S.D. dependent	1.313229
S.E equation	6.301577	Akaike AIC	6.780678
Sum sq. resid.	397.0987	Schwarz SC	7.016695
Log likelihood	45.85509		

Author's calculation using E-View 8.0

Results from vector error correction model table above show that the error correction coefficient (UN) is properly signed at -0.30458 and statistically significant. The coefficient of the ECM is -0.30458 and it indicates that a deviation of unemployment from the equilibrium in the long run caused by short run shock is corrected by 30% in each year. The value of 30% shows an error correction mechanism of our model. Thus, the short run dynamics (error correction model) does not contradict but rather supports the co-integration relationship that exist between the dependent (UN) and the independent variables (CPI) and (LGDP). In other words, the coefficient of determination (R^2) shows that 33% of variation in unemployment is explained by the variation in the independent variables (corruption, CPI, and economic growth, LGDP).

5.4: Granger causality result Table 7: Granger causality test result

Null Hypothesis	Obs.	F-Statistics	Prob.
CPI does not Granger Cause UN	36	3.87718	0.0367
UN does not Granger Cause CPI		1.23330	0.3321
LGDP does not Granger Cause UN	36	0.69199	0.5230
UN does not Granger Cause LGDP		3.02340	0.0940
LGDP does not Granger Cause CPI	36	7.10801	0.0120
CPI does not Granger Cause LGDP		0.64570	0.5448

Source: Author's computation using E-View 8.0

Journal of Developing Economies
ISSN 2790-6957 (Online)
Vol.3, Issue 1, pp 32 - 50, 2021
www.ajpojournals.org

With reference to Table 7, the causality test for the short run relationship between corruption (CPI) and unemployment (UN) indicates unidirectional causal relationship from corruption to unemployment. This is because their F-statistics are significant with P-values less than 0.05. It shows that no bidirectional causal relationship exist between corruption and unemployment. The finding concurs with Enofe et al., (2016). The causal relationship between economic growth (LGDP) and unemployment (UN) shows no relationship. Their Tstatistics are not significant and P-values are not less than 0.05. This shows that even in the short run corruption matters for unemployment in Nigeria.

Table 8: Testing hypothesis 2

H_0	Corruption is not likely to cause unemployment in the short run in Nigeria	Measured with Granger causality test result
H_1	Corruption is likely to cause unemployment in the short run in Nigeria	

With the explanation on Table 8 above, there is a positive unidirectional Granger causality relationship between corruption and unemployment in Nigeria. This shows that corruption causes unemployment in Nigeria. This short run result is in line with our aprori expectation. Thus, the null hypothesis which states that corruption is not likely to cause unemployment in the short run is rejected, while the alternative which states that corruption is likely to cause unemployment in the short run is accepted.

5.5: Variance decomposition result **Table 9: Variance decomposition result**

Period	S. E	UN	CPI	LGDP
1	6.301577	100.0000	0.000000	0.000000
2	7.272259	96.66640	1.567427	1.766171
3	8.804568	90.64795	8/057044	1.295008
4	10.76400	88.53081	9.872920	1.596270
5	12.97658	88.99837	8.645524	2.356102
6	14.80731	89.80544	7.636063	2.558502
7	16.27927	90.22296	7.275998	2.501038
8	17.58556	90.29469	7.254004	2.451304
9	18.85375	90.28857	7.240186	2.471248
10	20.08663	90.33659	7.141851	2.521558

Source: Author's computation using E-View 8.0

Table 9 is the variance decomposition result for our model and it shows that the variance of unemployment (UN) rates is caused by 100 percent by itself in the first year. In the second year the unemployment rate variance is decomposed into its own variance (96.67%). Summarily,

changes in unemployment are mainly caused by its own variation. However, corruption (CPI) contribution to unemployment (UN) increased from 8.06% in the third year to 9.87% in the fourth year. That was a period when corruption contribution to unemployment was at its apex. From year sixth to the end of the tenth year, the variation in unemployment (UN) caused by corruption started to decline. The reduction could be as a result of the government effort to check corruption practices in Nigeria. The own shocks of unemployment constitute a significant source of variation in unemployment forecast error in the time horizon, ranging from 100 percent to 90.34% percent in year ten. Ten years after, variation in unemployment is accounted by unemployment itself followed by corruption. In a nutshell, the changes in unemployment are mainly caused by its own variation. The important feature of Table 9 above is that besides unemployment the predominant source of variation in unemployment is corruption.

5.6: Impulse response result

Figure I in page 17 is the impulse response of unemployment (UN) to corruption (CPI) and economic growth (LGDP) in Nigeria. It shows the response of unemployment to shocks in corruption and economic growth. Figure 1A shows that the response of unemployment to corruption is positive from the first period. From the 1st to 3rd period the positive response of unemployment to corruption is rising, but remained stagnant from the 3rd year to the 4th year. From the 4th year to the 6th year it started to decline and consequently started to rise. In a nutshell, the response of unemployment to corruption is positive.

The second part of the diagram reveals that the response of unemployment to economic growth is not positive, but rather negative. Precisely, it shows that the response of unemployment to shock in the economic growth indicates that unemployment is at the mean level in the third year. Though negative, it declined further to the 5th year before it started to improve in the 8th year and afterward started to decline. In summary the response of unemployment to economic growth is negative. It is only in the 1st and the 2nd year that it is positive. This could be that the output is not significant enough to attract employment. It could also mean that output growth was instigated by capital intensive mode of production, followed by sacking of some workers that were employed during labour intensive mode of production. Lastly, to answer research question 2, unemployment respond positively to the shock from corruption in Nigeria.

Response to Cholesky One S.D. Innovations

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Vol.3, Issue 1, pp 32 - 50, 2021
www.ajpojournals.org

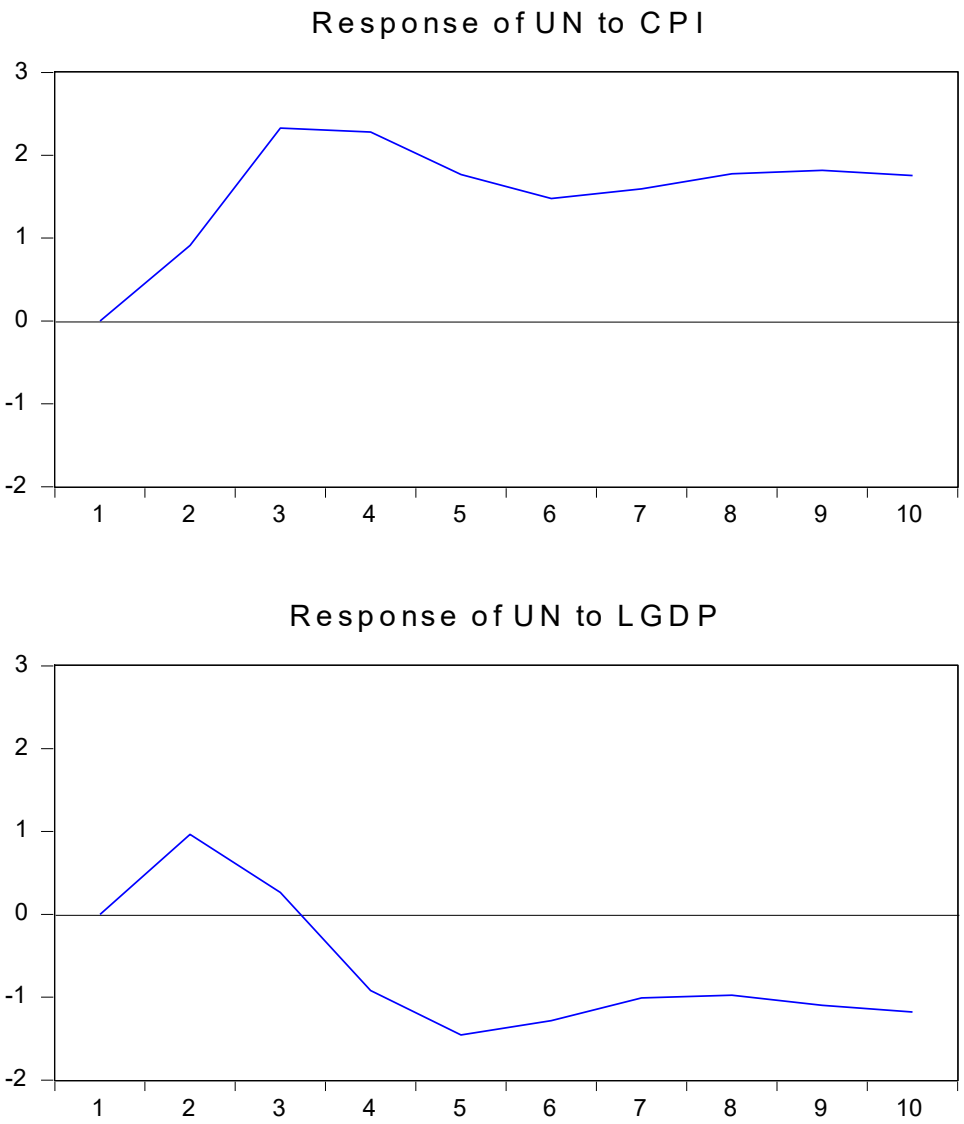

Figure 1: Impulse response function

Source: Author's derivation using E-View 8.0

5.7: Diagnostic test results Table 10: Correlation Matrix and Diagnostic Tests

	UN	**CPI**	**LGDP**
UN	1	0.359983	0.530488
CPI	0.359983	1	0.610610
LGDP	0.530488	0.610610	1

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www.ajpojournals.org

Test	Null Hypothesis	T-Statistics	Probability
White (Chi-sq.)	**No conditional heteroscedasticity**	45.83387	0.5620
Jarque-Bera	**There is no normal distribution**	6.455062	0.3742
Langrage Multiplier	**There is no serial correlation**	8.286599	0.5055

Source: Author's computation using E-View 8.0

From Table 10 above, the values in the correlation matrix results for correlation are not up to 0.8 which shows that our long run and short run results are not spurious (Bryon 1984). Furthermore, all the variables pass through other necessary diagnostic tests regarding heterroscedasticity, normal distribution and serial correlation. In all the results the P-values are greater than 0.05 which shows that the null hypotheses of no serial correlation and no heteroscedasticity are accepted, while the alternative rejected. The null hypothesis of no normality of error term is rejected and the alternative accepted.

Table 11: Results of the logistic regression analysis for employment from bribery, favouritism and nepotism corrupt practices

Variables	B	S.E	Wald	Sig.
Favouritism (X1)	1.421	.271	11.442	.001***
Bribery (X2)	2.765	.356	49.878	.000***
Nepotism (X3)	1.311	.231	11.111	.002*** Constant
1.413 .343	6.226	.016		

Number of obs, 181; df of reg; chi-square statistics, 142141 at significant level 0.000;p-value 0.000, Cox and Suell, R^2 0.273, Nagelkerke R^2 0.542 -2loglikelihood, 261.025, Hosmer and Lemeshaw chi-square, 4.338 at significant level 0.724; predicted correct at block 0, -354.083; -2 log ,likelihood at block 1, 272.014; (-2Log Block 0) – (-2Log Block 1) = chi-square; = 576.083 – 394.014 = 193.070; *significant at 10% level; **significant at 5% level, ***significant at 1% level.

Favouritism on employment was 1.421 and significant at 0.001 (1%). Furthermore, the beta value for bribery on employment was 2.765 and significant at 0.000 (1%). In other words, the beta value for nepotism on employment was 1.311 and significant at 0.002 (1%). These results are in line with the findings of Bechir (2016). Therefore, with regards to number one research question, bribery, favouritism and nepotism influence employment in Nigeria.

Unique contribution to practice/policy

In this research study an empirical investigation was set up to analyse the impact of corruption on unemployment in Nigeria. The originality of this study consists in computing the contributions of corruption and economic growth to unemployment for a long time covering the period of 1980-2018. The study sought to find out how unemployment responds to corruption and to determine the period where the impact of corruption on unemployment is severe, in order to help the policy makers to identify the period to propose, execute and intensify the fight against corruption to reduce unemployment. Specifically, it will help the policy makers to know the period to propose and intensify their targeted policies in fighting corruption.

Contribution to theories

The originality also consists in investigating the corruption theories of neo-patrimonialism and prebendalism to ascertain whether it holds water in Nigeria. The analysis first reveals that both in the long and short run corruption cause unemployment in Nigeria, whereas economic growth negatively relates to unemployment. It further shows that unemployment responds positively to corruption especially in the second period, thereby contributed to literature which shows that corruption matters for unemployment in Nigeria. In the second analysis, bribery, favouritism and nepotism are positive and significant to employment in Nigeria, which shows that our results are in line with corruption theories of neo-patrimonialism and prebendalism, thereby contributed to theory.

Conclusion

This study therefore concludes that in order to reduce the high level of unemployment in Nigeria, we should seek to fight corruption and work on improving economic growth. A good fight against corruption will check bribery, favouritism and nepotism that are rampant in public places in Nigeria.

Recommendation

To reduce unemployment, the eradication of corruption should be the priority of policy and decision makers. Thus, this study recommends severe punishment of life jail to act as deterrent to corruption. This study further recommends the use of merit system and aptitude test as yardstick for giving employment. This will help reduce corrupt practices of bribery, favouritism and nepotism in giving employment in Nigeria and should as well be another priority of policy and decision makers.

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