Corruption, governance, institutional quality, and underground economy in Nigeria

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Abstract

The underground economy is a prevalent characteristic of nations all over the globe. This paper explores to which degree corruption, governance and quality of institutions influence the underground economy in Nigeria from the period of 1996–2020 using generalized method of moments (GMM) estimator. Generally, as was observed, when all control variables were introduced institutional quality (INST) and unjust distribution of income (GIN) continued to show positive and significant relationship with underground economy. As such, this paper recommends that Nigeria's government should strengthen its institutional environment and apply a combination of fiscal policy, and labour and financial market reforms to reduce economic inequality.

Keywords: Corruption, governance, institutional quality, underground economy.

JEL Classification Codes: E2, H0 , O1, O4.

1. Introduction

The underground economy involves economic activities that are considered unsanctioned, probably in view of the fact that the goods or services sold are illicit in character, or due to enterprises decline to act in accordance with governmental reporting stipulations (Bloomenthal, 2019). Alternatively

regarded as informal economy, the underground economy in Nigeria engulf approximately 59.5% of the nation's economy according to a survey by Schneider (2007). This proportion of the underground economy has exhibited no trace of diminishing as the most recent data by the International Monetary Fund (Moses, 2019) reveals that it has only barely reduced to 56.67% in 2015. Policy attempts by the government to motivate enterprises in the parallel economy to switch to the conventional economy over time have generated inadequate result attributable to several factors including unfair taxes, bureaucratic bottlenecks and certainly the terrible challenge of endemic corruption (Moses, 2019). Corruption is a severe worldwide predicament. Authorities, decision makers, international organizations, and scholars are engrossingly worried about the consequence of fraudulent habits on economic development and conducive business climate (Awasthi & Bayraktar, 2015; Dutta & Sobel, 2016; Xie et al., 2017).

However, this paper focuses not just on corruption alone but analyzes how the level of magnitude, governance and organizations' attributes induce underground activities in Nigeria. The connection linking corruption and the institutional systems of nations appears to be firmly established at the same time apparent. Definitely, Beuhn & Schneider (2012) revealed that corruption, commonly elucidated to be the misuse of government authority for personal advantage, demonstrates a weakness in governmental and regulatory procedures and its continuousness is associated with the deficiency of the legal structure and the administration of justice. Consequently, the presence of corruption signifies a flaw of administration generally. With respect to this, one may concur with Shleifer & Vishny (1993) that corruption suggests the absence of efficacy of governance and even changes this efficacy.

Several authors, including Johnson et al., 1997; Friedman et al., 2000; Djankov et al.,2002; and Dreher & Schneider, 2010; highlighted the idea that crookedness and underground activities are complementary. Numerous studies emphasized the function of the standard of organizational arrangements in accounting for the unofficial sector (Chowdhury, 2005; Dreher et al., 2009; Torgler & Schneider, 2009). Similarly, several scholars have examined governance and informal economy nexus (Abed & Gupta, 2002; Hossein et al., 2007; Kus, 2010).

Nonetheless, this paper explores the interaction of corruption, quality of institutions, governance, and underground economy in Nigeria empirically. Though the enthusiasm in ascertaining the genesis of the underground economy and other prohibited operations has greatly

expanded over the last few years (using cross-country data, cross-sectional data and panel analysis), nevertheless, exploring the genesis is up to now an embryonic field of research (especially, using within country data). Notwithstanding, the empirical evidence on the underground economy is still very scanty in Nigeria (Elijah & Uffort, 2007; Ihendinihu & Ochonma, 2010; Ariyo & Bekoe, 2012; Ogbuabor & Malaolu, 2013; Ihendinihu, 2013; Nmesirionye & Ihendinihu, 2016) and that justifies the need to focus on the country and to take account of the country specifics.

The paper is divided into four segments. The second segment explains methodology and data utilized mainly for this study. The third segment discloses outcomes and discussions. Segment four is devoted to summary, conclusion and policy prescriptions.

2. Methodology and Data

To examine the interaction of corruption, quality of institutions, governance, and underground economy in Nigeria, the underground economy as percent of total annual GDP (UND) was used as dependent variable. Concerning corruption, Transparency International's Corruption Perceptions Index (COR) was utilized to evaluate public sector corruption, i.e., managerial and legislative corruption. The index valuations are decided by applying data from surveys and evaluation of corruption, obtained by array of prestigious organizations.

To encapsulate organizational capacity, which portrays the degree of administration of justice to curtail unethical habits of government workers, three indicators were used:

i) Supervisory standard (RQ)- observations of the capacity as regards the authority articulating as-well-as administering good actions and ordinances which allows as-well-as encourages nonpublic section advancement.

ii) Law and Order (RL)- understanding of the degree that individuals, organizations possess trust as-well-as obey the regulations of society, especially, the caliber of pact execution, possessions entitlements, law enforcement body, and judiciary, together with the likelihood of lawlessness and conflict.

iii) Regulating of Unscrupulousness (CC)- observations of the limit that official authority is used for personal benefit, along with negligible and magnificent structures of fraudulency, besides appropriating of the state by exclusive as well as

special groups. To actually capture institutional quality, Principal Component Analysis was used to condense these three indicators to form a composite index (INST).

To capture governance, which is an authority's ability to design and execute precedents, at the same time implement duties, notwithstanding if that authority is democratic or not (Fukuyama, 2013), three indicators were used:

i) Voice and Accountability (VA)- observations of the limit that a nation's people are prepared to engage in electing their governing authority, in addition to right to speech, right to interaction and independent media.

ii) Political Soundness and Non-existence of Conflict (PS)- observations of the possibility such that authority are made to be incapable of functioning or surviving or dethroned by unlawful or brutal means, along with politically stimulated ruthlessness or intimidation.

iii) Administrative Efficiency (GE)- observations of the caliber of government duty, the caliber of the civil duty along with the level of its freedom from political tensions, and the caliber of plan articulation as well as execution, and the trustworthiness of the authority's devotedness to such course of actions. To actually capture institutional quality, the first component via Principal Component Analysis of these three measures were applied to create a composite index (GOV).

In exploring the influence of corruption, quality of institutions, and governance, on underground economy in Nigeria, control variables were introduced. The control variables encompass interest rate, unjust distribution of income, tax burden, unemployment, which are all economic causes of underground or shadow economy. Unjust distribution of income is proxy by Gini coefficient (GINI) which is a measurement of income inequality. The choice of this proxy is because increased income inequality causes greater conflict over income distributional issues. In addition, income inequality exert influence on the behavior of total demand and affects the motives of a firm to associate with shadow economy. Unemployment rate (UNEM) pertains to labor force proportion which has no work but ready at the same time searching for employment. Real interest rate (INT) is the lending interest rate (with inflation taken into consideration) as indicated by the GDP deflator. The tax burden is the proportion of the taxes that is paid to the government in a

specific term and the revenues that is obtained in the same term. This is proxy by average tax revenue (ATAR).

The data for these variables range from the period of 1996–2020. The choice of this period is based on availability of data. Underground economy as percent of total annual GDP was collected from theglobaleconomy.com website. Transparency International's Corruption Perception Index was collected from countryeconomy.com website and theglobaleconomy.com website. Quality of institutions and governance indicators were advanced by World Bank Governance Indicators. These indices were collected from theglobaleconomy.com website.

2.1. Model Specification

The models in this paper was specified to suit the country-specific nature, the peculiarity of the present research, and to explore the interaction of corruption, quality of institutions, governance, and underground economy in Nigeria. The model is stated thus:

$$Ў_t = ẗ_0 + ẗ_1ЖК_t + ẗ_2Ф_t + ẗ_2ЙИ + \mu_t \quad \text{.....(1)}$$

where $Ў_t$ represents underground economy as percent of total annual GDP (UND) at time t; ЖК stands for corruption (COR) proxy by corruption perceptions index ; ЖК is a vector of institutional quality. The variables include Law and Order (RL), Supervisory Standard (RQ), and Regulating of Unscrupulousness (CC); similarly, Ф represents a vector that captures governance. The variables include Voice and Accountability (VA), Political Soundness and Non-existence of Conflict (PS), and Administrative Efficiency (GE); ЙИ is a set of control variable which include real interest rate (INT), unjust distribution of income (GIN), tax burden (ATAR), unemployment (UEM); μ is error term; and ẗ is unknown coefficient of variable.

The technique of analysis is the generalized method of moments (GMM) which is a statistical technique that merges perceived economic facts with the details in population moment conditions to generate estimates of the unidentified parameters of economic model. Merits of GMM procedure: all that is needed is a moment condition; pointless to log-linearize anything; non-linearities are not a challenge; robust to heteroscedasticity and distributional assumptions.

3. Results and Discussions

The descriptive statistics of the time series deployed in the empirical investigation are displayed in Table 1. The sample size is 25. The result reveals that the mean values of the distribution for UND, COR, INST, GOV, GIN, ATAR, UNEM, and INT are 54.26040, 20.64000, -1.78E-17, -3.55E-17, 45.37560, 2.099163, 13.06360 and 5.973600 respectively, while the median which is the center of distribution less sensitive to outliers relative to mean are 55.84000, 22.00000, -0.474127, -0.499038, 45.08000, 1.804233, 13.90000, and 7.200000 respectively. In the same order, the maximum values for the distribution includes; 65.11000, 28.00000, 3.226191, 3.563139, 56.00000, 4.502187, 23.90000 and -42.31000 respectively.

UND, COR, and INT displayed negative skewness of -3.624306, -0.697855, and -1.562279 respectively, indicating that the left tail of their distribution is larger than the right (in a perfect normal distribution, the skewness is zero). In an ideal standard distribution, the kurtosis is zero. The descriptive statistics in Table 1 shows that UND has a kurtosis of 17.00681 which is the highest among the datasets (Datasets with greater kurtosis have weighty tails than datasets with lesser kurtosis. Kurtosis is a valuation if the data points are heavy-tailed or light-tailed in connection with a normal distribution). The Jarque-Bera test shows that most of the series are normally distributed (as shown by the high probability values).

Table 1
Descriptive Statistics

	UND	COR	INST	GOV	GIN	ATAR	UNEM	INT
Mean	54.26040	20.64000	-1.78E-17	-3.55E-17	45.37560	2.099163	13.06360	5.973600
Median	55.84000	22.00000	-0.474127	-0.499038	45.08000	1.804233	13.90000	7.200000
Maximum	65.11000	28.00000	3.226191	3.563139	56.00000	4.502187	23.90000	25.28000
Minimum	6.000000	7.000000	-1.984161	-1.406596	35.10000	0.402533	2.900000	-42.31000
Std. Dev.	10.86118	6.270832	1.498087	1.377623	5.793571	1.564311	5.945455	14.10801
Skewness	-3.624306	-0.697855	0.996090	1.295369	0.168832	0.428519	0.013503	-1.562279
Kurtosis	17.00681	2.279982	3.040709	3.594304	2.301982	1.654787	1.890493	6.626535
Jarque-Bera	259.0969	2.569198	4.135877	7.359499	0.626298	2.650117	1.283057	23.86939
Probability	0.000000	0.276761	0.126446	0.025229	0.731141	0.265787	0.526487	0.000007
Sum	1356.510	516.0000	-2.22E-16	1.33E-15	1134.390	52.47907	326.5900	149.3400
Sum Sq. Dev.	2831.166	943.7600	53.86236	45.54830	805.5712	58.72962	848.3624	4776.864
Observations	25	25	25	25	25	25	25	25

Source: Eviews 10 output

Table 2
Simple Correlations

	UND	COR	INST	GOV	GIN	ATAR	UNEM	INT
UND	1							
COR	-0.284	1						
INST	0.259	-0.741	1					
GOV	0.300	-0.689	0.465	1				
GIN	0.437	-0.412	0.175	0.563	1			
ATAR	-0.190	0.134	-0.067	-0.347	-0.427	1		
UNEM	0.071	0.248	-0.250	0.136	0.479	-0.582	1	
INT	-0.005	0.063	0.079	0.036	-0.018	0.056	-0.108	1

Source: Eviews 10 output

Simple correlations are described in Table 2. Each cell shows the correlation between two specific variables. Some correlations have the expected signs while some do not. For instance, the correlation between UND and COR is -0.284, which indicates that they're weakly negatively correlated, in other words, they are inversely related. This result is surprising. In the same manner, ATAR and UND, GIN and COR, ATAR and GOV, GIN and ATAR, and UNEM and INT all show weakly negative correlation.

A further look at Table 2 reveals that the correlation between COR and INST is -0.741, which indicates that they're strongly negatively correlated. In the same vein, the correlation value of -0.689 depicts a strong inverted correlation of GOV and COR while the correlation between ATAR and UNEM is negatively moderately strong (-0.582). Still from Table 2, the correlation between GIN and UNEM is 0.479, which indicates that they are weakly positively correlated. Similarly, the correlation result shows a weak positive trend between UND vs INST, GOV vs UND, GIN vs UND, ATAR vs COR, UNEM vs COR, GIN vs INST, GOV vs INST, and GIN vs UNEM. However, there appears to be moderately strong positive correlation between GOV vs GIN as indicated by the correlation value of 0.563. The values for INT vs UND, INT vs COR, INT vs INST, INT vs GOV, INT vs GIN, INT vs UNEM indicates that they're basically not correlated. Although the simple correlations results portrayed here are valuable, further econometric procedure is embarked upon to evaluate the vibrancy of the correlations while controlling for other factors. The estimation results of the interaction of corruption, quality of institutions, governance, and underground economy in Nigeria, using GMM estimator is presented in Table 3. In the same vein, the attestation of instrument is critical for stability of GMM estimator. Cragg–Donald statistic, which refers to how the F statistic is generalized (low values point to weak instruments)

and Stock-Yogo critical estimates were employed to check for feeble instruments. The null hypothesis being examined states that the estimator is poorly identified in the sense that it is subject to bias that is excessively huge. The critical values of the test are decided by the total available instruments, the number of incorporated endogenous regressors, and the size of estimator bias. The results presented in Table 1 depicts that Cragg–Donald statistics are above the Stock-Yogo TSLS 10% critical estimates (relative bias) and Stock-Yogo 15% critical estimates (size) in specification 1.

In specification 2, Cragg–Donald statistics are above the Stock-Yogo TSLS 5% critical estimates (relative bias) and Stock-Yogo 15% critical estimates (size). Specification 3 reveals that Cragg–Donald statistics are above the Stock-Yogo TSLS 5% critical estimates (relative bias) and Stock-Yogo 15% critical estimates (size). Cragg–Donald statistics are above the Stock-Yogo TSLS 5% critical estimates (relative bias) and Stock-Yogo 10% critical estimates (size) in specification 4. Specification 5 shows that Cragg–Donald statistics are above the Stock-Yogo TSLS 5% critical estimates (relative bias) and Stock-Yogo 10% critical estimates (size). In sum, regarding critical estimates (relative bias), Cragg–Donald statistics are above the Stock-Yogo TSLS 5% critical estimates in all four specifications, but above the Stock-Yogo TSLS 10% critical estimates only in specification 1. Concerning critical estimates (size), Cragg–Donald statistics are above the Stock-Yogo 15% critical estimates in specifications 1, 2, and 3, but above the Stock-Yogo10% critical estimates in specifications 4 and 5. Overall, the weakness of instruments is rejected. Invariably, the indication in Table 1 is that the instrumental variables are relevant (strong) in each specification.

In exploring the consequence of corruption, quality of institutions, and governance, on underground economy in Nigeria, control variables were introduced. However, the variables of interest are COR which is corruption (proxy by corruption percept index), quality of institutions (INST), governance (GOV), and underground economy. As earlier mentioned, to actually capture institutional quality (INST) and governance (GOV), Principal Component Analysis was used to condense some indicators to form these composite indices. The result in Table 1 reports that in specification 1 where all the variable of interest were regressed against underground economy, corruption (COR) proxy by corruption perceptions index, though having positive sign (aligning with Esaku (2021a) whose results indicate that, for the situation of Uganda, a rise in fraud is instrumental to informal economy expansion), is insignificant in determining underground

economy in Nigeria within this period of study. Nevertheless, Page (2018) sees corruption as the sole unsurpassed hurdle forestalling Nigeria from accomplishing its immense capacity. According to Page (2018), it pumps out billion dollars annually out of the nation's economy, hampers progress, and cripples the social agreement connecting the authority and its citizens. Nigerians see their nation been classified among the globe's utmost fraudulent country and battles every day to endure the consequences (Page, 2018).

Throughout the socio-economic class divide, there is a perception that the repercussions of bad administration will level up with each person eventually. The recent outcries by youthful Nigerians in opposition to police cruelty, the End SARS demonstrations, uncovered the disgusting human rights abuses undergone by numerous Nigerians at the hands of the institution established to defend them. In addition to the police itself, the turmoil indicated the youth's disgruntlement with governance across the nation (Kasali, 2020). In terms of statistics, Nigeria has constantly been placed at the bottom in the World Governance Index, especially on issues such as government efficacy, political firmness and the realness of disorder as well as intimidation, law and order, and regulation of fraud and dishonesty. In the 2020 Transparency International Corruption Perception Index, Nigeria is perceived as an extremely corrupt nation with a grade of 25/100. Around that period, its corruption rating rose from 146 in 2019 to 149 in 2020 out of 180 countries surveyed (Okoi & Iwara, 2021). Nonetheless, in specification 1, institutional quality (INST) and governance (GOV) both showed statistical significance at 1% level. They both have positive relationship with underground economy. This result is contrary to Maulida & Darwanto (2018) whose findings revealed that institutional quality depicts an inverse relationship with the development of shadow economy but aligns with Ouédraogo (2017) that poor institutional environments encourages enlargement of the informal (underground) economy.

In specification 2 when the first control variable (unjust distribution of income (GIN) proxy by Gini coefficient (GINI) which is a measure of income inequality) was included, COR still exhibited a positive sign but was insignificant in affecting the level of underground economy. Institutional quality (INST) maintained a positive relationship with underground economy and statistical significant at 5% level (the magnitude of the coefficient on INST slightly increased when compared to its magnitude in specification 1) while governance (GOV) also showed positive relationship with underground economy but turned out to be statistically insignificant at any of the

standard statistical significant levels (1%, 5%, or 10%).Invariably, GOV lost its significance once the influence of other factor (unjust distribution of income GIN) was considered.

Unjust distribution of income (income inequality -GIN) showed a positive significant relationship with underground economy. In fact, a 1% rise in unjust distribution of income will bring about a 0.626699 % growth in the level of underground economy in Nigeria. This outcome is statistically significant at 5% level and aligns with Esaku (2021b) that revealed that a upheave in financial disparity significantly expands unorganized sector magnitude in Uganda. Nonetheless, this positive relationship between unjust distribution of income (GIN) and underground economy (UND) could be attributable to income inequality. Financial disparity is one of Nigeria's most severe but lowest addressed problems (Akinwotu & Olukoya, 2017). The scale of economic (income) inequality has attained utmost levels, and it revealed in the day-to-day struggles of the bulk of the population in spite of buildup of outrageous magnitude of wealth by a few persons (Proshare, 2019). Beside poverty, the gap between rich and poor engenders anti-authority opinion and might ignite public crisis one day (Akinwotu & Olukoya, 2017).

Specification 3 introduced an additional control variable tax burden (proxy by average tax revenue (ATAR). Tax burden (ATAR) showed a positive coefficient but was insignificant in determining underground economy within the period of study at any of the conventional statistical significant levels. The result shows that a 1% boost in tax burden (ATAR) will induce a 0.580378 % expansion in the level of underground economy. Statistically, this result is of no significance (the available evaluates of the consequence of taxes on the shadow economy are greatly conflicting throughout various research and differ from appearing positive and significant in previous single nation research (Clotfelter 1983, Slemrod 1985, Schneider 1986) to being insignificant or even strongly negative in various country studies (Johnson et al., 1998; Friedman et al., 2000; Torgler & Schneider, 2006). Nevertheless, the result in this study suggests that tax burden (ATAR) was not accountable for a rise in the degree of underground economy in Nigeria within this period of 1996–2020. The conventional tax rates are low in the country according to Premium Times (2021), but Nigerians render about the utmost indirect tax rates in the globe - far greater when compared with advanced nations. Implicit taxes are taxes borne but are not obvious nor documented. For instance, Nigerians supply electricity for themselves through generators; they mend roads to their communities, if they can bear the cost of it; there are no social security systems; they supply

security for their own safety; and they supply boreholes for drinking water with their own monies (Premium Times, 2021).

Specification 3 result showed COR still depicting a positive and insignificant relationship with underground economy. Also, GOV was still positively related to underground economy but statistically insignificant. The coefficient of institutional quality (INST) still has a considerable positive impact over underground economy, but its enormity slightly diminished while its significance was still at 5%. In the same vein, the relationship between GIN and underground economy was still positive and statistically significant at 5% level.

Unemployment rate (UNEM) was included in specification 4. UNEM exhibits a negative sign but is statistically insignificant in influencing the level of underground economy in Nigeria in 1996-2020 period. This result aligns with Schneider et al. (2010) that established non-existence of proof of a substantial connection allying unemployment and the unorganized sector. However, it should be noted that one out of three Nigerians capable and ready to work were jobless in 2020 (fourth quarter), as disclosed by the National Bureau of Statistics (Adegboyega, 2021). Unemployment rate in the country climbed to nearly 33.3%, resulting to approximately 23.2 million people, the greatest in about thirteen years as well as the second-greatest rate globally. The number leaped from 27.1 % reported during the 2nd quarter in the midst of Nigeria's protracted economic calamity aggravated by the COVID-19 disease (Adegboyega, 2021). The rate of unemployment in the nation seems to have quadrupled ever since 2016 when recession was experienced in the economy. A second wave of recession happened in the year 2020.

Also, in specification 4, ATAR still displayed a positive and insignificant relationship with underground economy. Similarly, COR still held a positive and insignificant relationship with underground economy. Nonetheless, institutional quality (INST) and unjust distribution of income (GIN) continued to show positive and significant relationship with underground economy.

Finally, real interest rate (INT) was incorporated in specification 5. The result showed an inverse relationship between real interest rate and underground economy, but its effect is somewhat marginal (this result from the estimation confirms the outcomes found in the simple correlation analysis). However, the relationship was not statistically significant at any conventional statistical significant level. That means, statistically, real interest rate (INT) is insignificant in influencing the level of underground economy within the period of this study. Nonetheless, Isenyo

(2021) noted that over the last thirty years, Nigeria has experienced the highest shocking interest rate that any developing nation can undergo. Historically in Nigeria, according to Op-Ed Contributor (2020), interest rates have consistently been rising, and it could be clearly ascribed to the monetary system in practice since the beginning of 2009 which aims to apply FGN bonds/T-bills as well as OMO bills as a way of alluring US$ towards Nigeria to assist in stabilizing the Naira. According to Stearsng (2019), Nigeria's soaring interest rates suppress business expansion and economic progress. Also, in specification 5, COR and GOV were still positively related to underground economy but statistically insignificant. Once again, institutional quality (INST) and unjust distribution of income (GIN) continued to show positive and significant relationship with underground economy. But this time, the significant level of institutional quality (INST) diminished from 5% to 10% level.

Table 3
GMM Estimates

VARIABLES	(1)	(2)	(3)	(4)	(5)
COR	0.083264	0.225221	0.258382	0.400668	0.378263
	(0.4963)	(0.3657)	(0.3231)	(0.2277)	(0.2477)
INST	1.479566	1.926814	1.763893	1.751508	1.771998
	(0.0061)*	(0.0105)**	(0.0301)**	(0.0545)**	(0.0962)***
GOV	1.922261	0.330437	0.433031	0.463744	0.729259
	(0.0025)*	(0.6352)	(0.5587)	(0.5818)	(0.4341)
GIN		0.626699	0.637488	0.764428	0.738673
		(0.0106)**	(0.0121)**	(0.0126)**	(0.0230)**
ATAR			0.580378	0.222814	0.197607
			(0.5698)	(0.8622)	(0.8989)
UNEM				-0.268513	-0.264468
				(0.2054)	(0.2651)
INT					-0.028384
					(0.5111)
Cragg-Donald F-stat:	18.07171	18.27001	20.85596	24.32519	28.51632

Source: Eviews 10 output
Note: * denotes statistical significance at the 1% level, ** signifies statistical significance at 5% level, and *** implies statistical significance at 10% level.

4. Conclusion and Suggestions

Underground economy exist in every country but the development and growth of it have led to many concerns in recent years. This paper explores the extent corruption, governance and quality of institutions affect the underground economy in Nigeria from the period of 1996–2020 using GMM estimator. In the first specification where all the variable of interest were regressed against underground economy, corruption (COR) proxy by corruption perceptions index, though having positive sign, is insignificant in determining underground economy in Nigeria within this period of study. Similarly, from specification 1, INST and GOV were shown to be positively related to underground economy and they were both statistically significant at 1% level. It was generally observed that even when all the control variables were incorporated in the final specification, institutional quality (INST) and unjust distribution of income (GIN) continued to show positive and significant relationship with underground economy.

In sum, the paper concludes that institutional quality (INST) is weak and brings about remarkable increase in underground economy in Nigeria. Similarly, the high scale of income inequality has significantly contributed to the growth of underground economy in Nigeria. As such, this paper recommends that Nigeria's government should strengthen its institutional environment via reforms aimed at guaranteeing the independence and sufficient financing of such institutions as the judiciary, the police and other law enforcement agencies in order to enhance avenue to fair and impartial administration of the justice system. Furthermore, such institutions that advocate political rights and civil liberty, private sector growth, boosting political stability and an independent and reliable judicial system for administration of contracts and property rights protection need to be strengthen.

A multi-faceted approach is required to reduce economic inequality in Nigeria given its multi-dimensional nature. As such a combination of fiscal policy, and labour and financial market reforms would be essential to confront it. Regarding the fiscal policy, greater expenditure in education and health care are required to enhance access and quality. In addition, more active fiscal policies should be ensured in this area of social protection programmes. That is, the federal Government of Nigeria should increase the funding and coverage of social protection programmes in Nigeria, especially, the aspect of income transfer. Similarly, tax policies need to be completely transformed to ensure wealth redistribution and reduction of income inequality.

Pertaining to labour, agricultural sector should be intensely focused on to guarantee national food security and employment generation. Invariably, expanding assistance to small-scale agriculture is necessary. In the same vein, local manufacturing should be spurred to generate more job opportunities. In terms of financial issue, giving loans to smallholder farmers will enhance the economic prospects of rural dwellers.

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Conflicts of Interest

The author does not have clash of interest.

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