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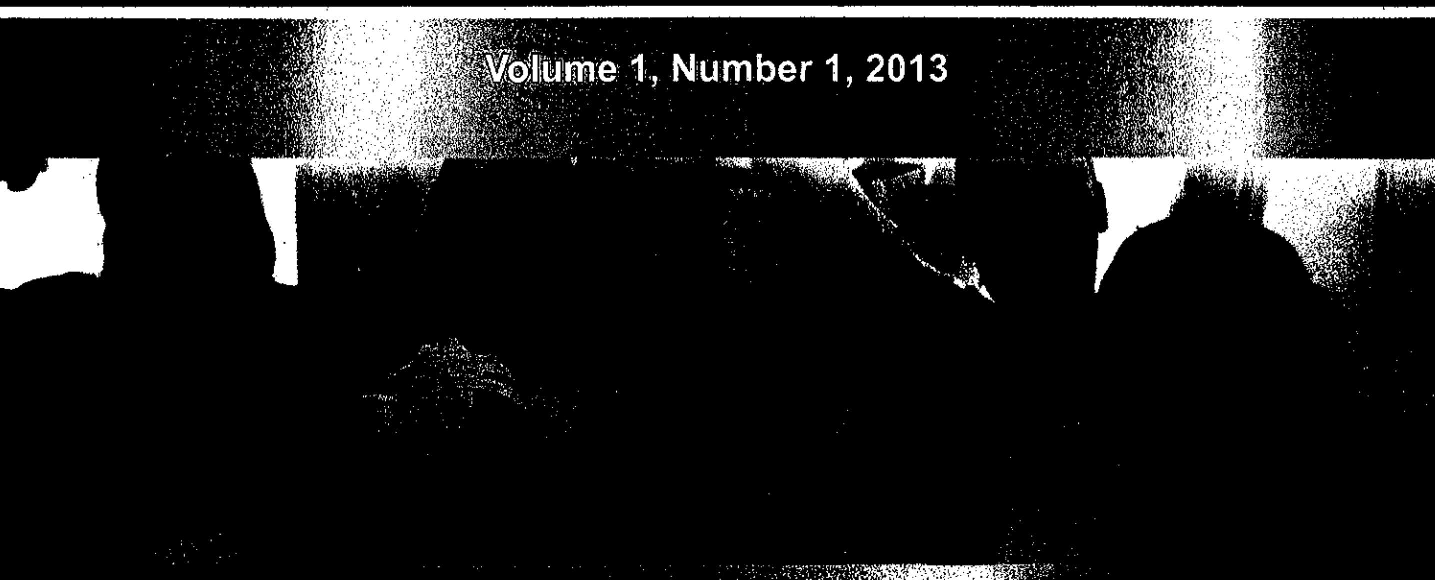

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THE IMPACT OF SELECTED ECONOMIC INDICATORS ON CRIME IN NIGERIA

Adenike, T. Egunjobi
Department of Economics & Business Administration
Redeemer's University, Mowe Ogun State, Nigeria.
titilayoola@yahoo.com

Olatokunbo, A. Oluwayemisi
Department of Economics & Business Administration
Redeemer's University, Mowe Ogun State, Nigeria.
toksyem572@yahoo.co.uk

Abstract
The study was designed to analyse the effects of socio economic determinants of crime in Nigeria by estimating the impact of poverty, unemployment and internal security on crime series from 1981 – 2006. The co – integration and parsimonious error correction model was used to examine the short and long run relationship between the variables. Also Granger causality tests was undertaken to determine the direction of causality between crime and the variables. The analysis provided evidence of a long run relationship among crime, poverty, unemployment and internal security and a unidirectional causality existed between crime and poverty and internal security, there seemed to be no causal relationship between crime and unemployment. The study recommended implementation/ monitoring of the existing programmes/ policies geared towards reducing poverty and unemployment while also increasing protective services.

Keywords: *Crime, Unemployment, Poverty, Regression, Causality.*

INTRODUCTION

Nigeria referred to as the Giant of Africa got the name because of her population. Presently, there are about 170 million Nigerians, with a huge reserve of unemployed labour, who had undergone tremendous changes over the past few years ranging from high unemployment, inflation, poverty and high income inequality brought about basically through unprecedented high levels of corruption and mismanagement of resources especially among public officers. As expected, this has been accompanied with high crime rates and high level of insecurity like kidnapping, armed robberies, advanced free fraud (419) to mention a few. The resultant effect had been for people to spend huge sums of money in providing security; hiring body guards, living in jail-like homes guarded by vicious dogs, razor wires and armed security guards summoned by panic buttons (Blackmore, 2003). The years of corruption, civil war, military rule and mismanagement has taken its toil on Nigeria.

Unemployment, poverty and crime are the major challenges common to less developed nations, however in recent times, due to the global economic recession, most developed nations are also experiencing poverty, crime and most especially unemployment. Unemployment leads to financial crisis and reduces the overall purchasing capacity of a nation. This in turn results in poverty followed by increasing burden of debt, which later encourages criminal activities. Poverty is multidimensional and thus there is no widely acceptable definition of the concept since it affects many traits of human life. It can be of different types; absolute poverty and relative poverty, conjectural poverty and structural poverty and in terms of deprivation; personal and physical deprivation, economic deprivation, social deprivation, cultural deprivation and political deprivation. (The various types of poverty had been well articulated in Egunjobi, 2013).Whatever the type of poverty, the basic reason had always been lack of adequate income mostly as a result of low employment opportunities and the consequential income disparity bring about mass poverty in most of the developing and under developed economies of the world. However, the World Bank (2000) defines poverty as a financial condition where people are unable to maintain the minimum standard of living.

The main source of income can be generated through employment opportunities which become a herculean task when jobs are not available to meet demand. The Unemployed can be described as members of the economically active population who are without work but are available for and seeking work, including those who have lost their jobs and those who have voluntarily left work (International Labour Organization, 2004). Economic Literature used four models to analyse the types of unemployment prevalent in Nigeria, these are The Monetarist or conservative model, the Keynesian or Conservative model, the Keynesian or centrist model, the Marxist or Leftist model and the Harris – Todaro Model.(for an in-depth analysis see Egunjobi,2013).Perhaps the most relevant and prevalent type of unemployment in Nigeria is the Harris – Todaro model which presupposes high unemployment figures caused by urban –rural implied wage differential. Crime is as old as man, acts of crime can be traced even to the first family on earth when Cain committed the crime of murder by killing his brother Abel. It has been observed that there is no universal definition of crime essentially because what may be an act of crime in one society might not be in another (Danbazau, 2007). Merriam-Webster Online Dictionary defined Crime as an act or the commission of an act that is forbidden or the omission of a duty that is commanded by a public law and that makes the offender liable to punishment by that law. In economics the venture into crime studies is fairly recent, pioneered by the work of Becker in 1968.He focused on the factors affecting the number of crimes a rational individual commits. He went further to develop the supply of offense function. Becker's work opened a new field of empirical research on the verification and study of the socio economic variables that affect crime (Gillani et al, 2009). Such significant variables include poverty, wage and income inequality, social exclusion, unemployment and level of education.

A recent survey of the literature on economics of crime limits it around three general issues (Witte and Witt, 2001); the effects of incentives on criminal behaviour, how decisions interact in a market settings and the use of cost benefit analysis to assess alternative policies to reduce crime. For a review see (Freeman 1999 in Witte and Witt, 2001). This paper however focuses on the role of incentives on criminal behaviour. The economic model of crime presupposes that in decision making individuals chose between criminal activity and legal activity on the basis of the expected utility from those acts derived from the assumption that the participation in crime activity is the result of an optimising individual responding to incentives. In tune with this, Witte and Witt (2001) listed some factors that influence individual's decision to engage in criminal activities. One the expected gains from crime relative to earnings from legal work, two, the chance of being caught and reported, three, the extent of punishment and four, the opportunities in legal activities. The study of crime rate in Nigeria is relevant not only on the national level in providing answers to significant factors determining the rate of crime, but also on the international level especially with the American declaration of Nigeria as a terrorist state in the light of incessant kidnappings mostly of foreigners, the unrest in the Niger Delta region and the recent "Boko Haram" saga. All tend to scare foreign investors thereby adversely affecting the economy. It is an obvious fact that the economy needs foreign direct investments in terms of job provision and income generation. As purported by Blackmore (2003), high crime rates has a negative influence on investors' confidence and affects the ability of the country in attracting foreign direct investment needed to achieve economic growth. This paper is therefore designed to investigate empirically the major socio economic indicators; Unemployment, poverty and internal security responsible for promoting crime in Nigeria and to recommend policies to help control and prevent crime in Nigeria.

EMPIRICAL STUDIES

Many studies had been conducted on the relationship between crime and its determinants, though most of these studies had been on developed countries, fewer on developing countries and very few on Nigeria. However a lot of factors have been adduced for leading to the promotion of crime. The empirical evidence on the relation between unemployment and crime had not been consistent, while some show evidence of a positive relationship between unemployment and crime (Fougere et al, 2003 and Winter – Ebmer, 2001),others depicted a negative relationship(Anderson, 2008 and Allen, 1996) while others produced mixed results (Entorf and Spengler, 2000 and Allen ,1996) to mention a few. Studies depicting a positive relationship include the work of Fougere et al (2003) who made use of cross sectional data on France. Land, Cantor and Russel (1995) in Egunjobi (2007) also conducted a similar study using post war United States data and confirmed that unemployment had a positive effect on crime. Good, Pirog –Good and Sickles (1986) discovered that a strong positive relationship existed between unemployment duration and time. Also, Raphel and Winter – Ebmer (2001) conducting a research on crime in the United States observed that amongst other determinants of crime, the decline in property crime rates can be attributed to the decline in unemployment rate. As against the practice of conducting research based on a particular country Lee (2003) conducted research on three Asia – Pacific countries (Australia, Japan, and South Korea). The techniques of analysis were cointegration and causality tests and the results portrayed a long run equilibrium relationship between unemployment and various time series.

The study conducted by Entorf and Spengler (2000) using panel data collected on Germany revealed mixed results while total unemployment was found to be negatively related to crime, youth unemployment was significant and positively related to crime. Also, in another study while unemployment was discovered to have a positive effect on robbery and burglary, it had a negative effect on motor vehicle theft and all property crime (Allen, 1996). Weatherburn, Lind and Ku (2001) while analysing the effect of the last Australian recession on break, enter and steal and motor vehicle theft found no evidence of any relationship between unemployment and crime. In the same vein Field (1999) suggested that unemployment seems to have no effect on post war British crime trends. Using binary choice models Anderson (2008) discovered that in South Africa, crime has a significant and negative effect on income. He concluded that it seems the greater expected material gain from robbing a wealthier household outweighs the opposing effect that poorer households are easier to rob. He however agreed that more thorough investigations could still be made. Also, Allen (1996) discovered that a negative relationship existed between current unemployment and motor vehicle theft and all property crime in United States. Accordingly, Fleisher (1966) attributes the notion to why low income increase the tendency of people to commit crime to the fact that they feel that not only are legitimate earning low but the opportunity cost of time actually in delinquent activity or in jail is low. However the study by Fajnylber et al (2000) also presented a different result, making use of the ordinary least square and dynamic generalized method of moments (GMM), his analysis showed that income inequality is positively related to crime.

Furthermore, other studies were extensions on the cost, effects and majorly the determinants of crime. Coomer (2003) objective was to analyse the effect of macroeconomic factors on crime. The results depicted that unemployment, inflation and poverty were significant and positively related to crime. Raphel and Winter – Ebmer (2001) and Blackmore (2003) analysing the determinants of crime in South Africa departed from the norm by making use of both macroeconomic time series with microeconomics cross-sectional series. The results identified income per capita, unemployment rate, drug use, ratio of women to men and degree of urbanization as significant determinants of crime while education and change in gross domestic product yielded insignificant results. Making use of OLS regression on United States city data, Gumus (2004) identified income inequality, per capita income, unemployment rate, police expenditure and presence of black population as significant determinants of crime. In the same vein, exploring the effect of monetary policies on crime, Teles (2004) discovered that while the effect on crime on fiscal policy is felt via government spending, inflation accounts mostly for the effect of crime via monetary policy. The research conducted by Gillani et al (2009) on Pakistan was designed to investigate the relationship between crime and various economic indicators on time series data for the period 1975- 2007, using co integration and causality test. The analysis provide evidence of the existence of long run relationship between crime, unemployment , poverty and inflation while the causality test show that crime is granger caused by unemployment , poverty and inflation in Pakistan. Another study on South Africa by Fajnzylber, Lederman and Loayza (2000) indicated that there are perhaps many factors that can cause crime rather than focusing on a single factor, they discovered that such factors include though not limited to economic recessions, poverty, unemployment, the inefficient level of crime expenditure, the age structure of the population and even social and moral degradation.

In addition, Smith (1997) and Brown (2001) suggested that the major reason for increased crime is government inaction to the crime situation in terms of inadequate police training, corruption in the police force, faulty judicial system, insufficient police presence, nonexistence or functioning of police and prison civil rights union. Becker (1968) model set to examine the impact of legitimate labour market experiences (unemployment) and sanctions on criminal behaviour, the empirical findings show that poor legitimate labour market opportunities of potential criminals such as low wages and high rate of unemployment increases the supply of criminal activities and sanctions deter crime. Hooghe et al (2010) investigated the impact of deprivation indicators on crime in Belgian municipalities ($n = 589$) for the period 2001–06. A spatial regression analysis was used and the results show that unemployment figures have a strong and significant impact on crime rates, and this effect is stronger than the effect of income levels. Although, Income inequality had a significant positive impact on property crime rates it had a negative impact on violent crime. In Nigeria, studies on crime are few. Using descriptive statistics to analyse data on unemployment, crime and poverty in Nigeria, Odumosu (1999) deduced that the high rate of unemployment in Nigeria had not only increased the level of poverty but has also lured many Nigerians into committing crime. Although the study by Akpotu and Dike (2004) made use of questionnaire based on primary data gathered from prison inmates in Delta states of Nigeria, analysis of the data involved the use of simple percentages. However, the results revealed that there exists a strong link between low level of education and high crime rates and that crime control could be more expensive than providing education in monetary terms. The implication is that ensuring a high literacy rate is a better alternative of curbing crime.

According to Omotor (2009), the study by Egunjobi (2007) was purported to have been able to overcome gaps in the studies by Odumosu (1999) and Akpotu and Dike (2004). The research was based on the analysis of the relationship between unemployment and crime from 1981 – 1998. It included not only a descriptive analysis but also the error correction and the Granger causality tests were conducted. The result depicted that a positive long run equilibrium relationship existed between unemployment and crime series. Also unemployment unidirectional granger caused crime in Nigeria. However, Omotor (2009) differs from Egunjobi (2007) via the use of an error – correction granger causality based model. The study was based on an analysis of the socio economic determinants of crime in Nigeria. The analysis revealed that amongst the socio economic variables used on crime; unemployment, inflation, literacy rate, poverty, and population. Unemployment was found to be the most significant determinant of crime. While crime was not significantly responsive to population, literacy, inflation and income, the direction of long run causality between security and discomfort was also examined and evidence of insecurity was seen to unidirectional granger cause discomfort. A more recent study is that conducted by Usman et al (2012). The objective of the study was to investigate the rate of crime in Sokoto state which he did via the Principal Component Analysis (PPA). The results depicted that out of the seven variables analysed three (Assault, Grievous harm and wounding and Store breaking were the most commonly committed crimes in Sokoto. They concluded that Sokoto state has a low criminal record.

Crime Scenario in Nigeria

The problems and the associated effects of Crime, Unemployment and Poverty had been the major obstacles to economic development in Nigeria. Underemployment and unemployment have crippled the Nigerian economy, the economy has become an assembling and packaging industry with actual production been minimal because of the high rate of insecurity, corruption and low infrastructural amenities needed to promote and encourage production. Added to this is the excessive population by rural –urban drift. In confirmation of the above statement, the Statistician General of the Federation, Dr Yemi Kale reported in 2010 that in 2011 around 32.5million Nigerians will be unemployed. Also in 2011 the World Bank in its publication on poverty in the midst of plenty reported that poverty has been continuous and worsening in Nigeria, they stressed this by stating that Real GDP and consumption fell by 5% within 1992 – 94 while inflation increased from 49% to 77%. Furthermore, Nigeria has a poverty line of N395 (1985 prices) per annum per capita. This figure was selected as the poverty line that could consume minimum FAO recommended calories per person per day. The line portrayed 43% of Nigerians as poor in 1985 and 34% in 1992 showing a decline of 9% in head count over a seven year period. However, though poverty has been on the increase the situation is worsened by the high level of double digit unemployment rates been experienced. These factors and many more had been purported to have lured many to crime (Becker, 1968).

In respect of crime, news, magazines and programmes (crime fighters) are abound with interview of crime suspects especially on Armed robbery, theft/ stealing, advanced free fraud (419) and Kidnapping, most of which are graduates and skilled labourers, the answer to why they are into crime had been "I couldn't get a job", or" times are hard", "No other means of survival, I must feed my family". In Nigeria, there exists a high level of insecurity because of the prevalence of crime, which is accompanied by a faulty justice system and corrupt police made more obvious because of the inefficiency of the police in terms of record keeping and tracking of offenders' practices and thus understating the reporting of crime in Nigeria. Many a times people take the Law into their hands by dealing with the perpetrators themselves "jungle justice" or handling them over to vigilante groups, who grant instant judgement. Perhaps another reason is that Government expenditure on internal security is grossly in sufficient, most get into crime with the belief that they would not be caught especially if they can lay their hands on sophisticated gun, more superior to those handled by the police and if they are caught they can" bribe their way out". The Nigerian Police in its Nigerian Police Watch Publication (2007) classifies offences into four major categories:

i. Offences against persons includes: manslaughter, murder and attempted murder, assault, rape, child stealing etc.
ii. Offences against property includes: armed robbery, house and store breaking, forgery etc
iii. Offences against lawful authority includes: forgery of currency notes, bribery and corruption etc.
iv. Offences against local Act include: traffic offences, liquor offences, etc

Reporting on the state of crime in 2007, the ten most prevalent crime in Nigeria included Armed Robbery (A/ROB), Murder (MUR), Attempted Murder (A/MUR), Kidnapping (KDN), False Pretence and Cheating (F/PRE) , Burglary (BUR), Arson (ARSN), House Breaking (H/BRK),Grievous Harmand Wounding (GH/W), Rape and Indecent Assault (R/INA).(see table one).The crime that is most common in Nigeria is Grievous Harm and Wounding with a record of 6,175 cases, closely followed by False Pretence and Cheating (5,860) cases, the lowest number of crimes were recorded for kidnapping (277). Table 2 also gives an indication of the states were most of the cases were reported, it would also seem that more crimes are perpetuated in Oyo, Lagos and Akwa – Ibom states.

Table 1: Ten Most Prevalent Crimes In Nigeria.

CRIME	GH/W	F/PRE	H/BRK	A/ROB	MUR	BUR	R/INA	ARSN	A/MUR	KDN
TOTAL	6175	5860	2443	2327	1891	1551	1543	1105	328	277
States most prevalent	Kaduna &Oyo	Lagos &Kano	Plateau &Oyo	Oyo & Rivers	Akwa – Ibom&Borno	Oyo & Lagos	Lagos &Kano	Oyo & Niger	Akwa – ibom& Imo	Lagos &Akwa – Ibom

Source: Nigerian Police Watch 2007

Table 2: Record of Offences from 2006to 2009

Offences	2006	2007	2008	2009
Offences against Persons	74,585	34,738	35,109	38,955
Offences against Property	87,454	49,415	47,626	64,286
Offences against Lawful Authority	7,677	7,314	5,938	7,878
Offences against Local Act	2,610	2,350	90,156	1,378
Total	172,326	93,817	178,829	112,807

Source: Nigerian Police Watch 2007 &2009

An analysis of table two showed that crime figures was very high in 2008 and 2006 while a great decline was recorded in 2007.When comparing 2007 to 2006 crime figures the country recorded a decline in criminal activities, the same could also be said when comparing 2008 with 2009 crime statistics. In absolute terms a decline was experience in crime from 2006 to 2009. Furthermore, all the various types of offences recorded their highest figures in 2006, but for other years there seemed to be a decline in crime especially in 2007 and 2008, except for offences against local acts which recoded the greatest deviation in 2008 with a total number of 90,156 cases but drastically fell to 1,378 in 2009. Offences against property were the highest offences most committed in 2006 and 2009.On the average across the years, offences against property seems most prevalent in Nigeria, followed by offences against persons, then offences against local act and finally the least, offences against lawful authority.

Model Specification and Estimation Technique

An improvement to the economic model of crime involves an interdisciplinary approach which can include social, political, economic and law enforcement variables in the design (Blackmore, 2003). Poor data quality is a problem for crime data because the records supplied by the police would be an understatement of true criminal activities by a relatively large margin (Nilsson and Agell, 2003). In Nigeria, the Federal Office of Statistics classified all crimes reported into three; Serious crime, Minor offences and Minor crime. However with the establishment of National Bureau of Statistics classification of crime is majorly into two; Minor crime and offences and serious crime.

The model is thus specified:

CR = f (logINC, IogINT,logUNE)

Where

CR = Crime Rate

INC = income

INT = Internal Security

UNE = Unemployment rate

The crime series are

MIC = Minor Crime and Offences

SEC = Serious Crime

TOC = Total Crime

The data in the study is obtained from various issues of the Central Bank of Nigeria Statistical Bulletin (for Government Expenditure on Internal Security) and various issues of the National Bureau of Statistics – Annual Abstract of Statistics (for crime data, unemployment rate and income).

Variables: Expenditure on total protection services includes safety and security, justice and correction services, because these data was not readily available, expenditure on internal security was used as a proxy (Smith, 1997 and Brown, 2001).Thus, one can easily deduce that government expenditure on total protection services has been insufficient in Nigeria and imply that increased government expenditure on security in Nigeria would serve as a deterrent and also a means of combating crime. Income had been used as proxy for poverty and standard of living (Omotor, 2009, Fajnzylber, Lederman and Loayza, 2002 and Brown 2001). A negative relation to crime is expected if crimes are motivated by need as against greed, if not then a positive relationship will be derived because increase in income per capita represents a larger possible reward to criminal activity especially since income per capita does not take into account distribution of income.

Many studies adduce to the fact that unemployment is perhaps the most significant factor affecting crime. As earlier stated the effect of unemployment on crime could give mixed results but given the nature of unemployment in Nigeria it is expected to be positively elated to crime especially minor offences.

THE METHODOLOGY: COINTEGRATION ANALYSIS, ECM AND CAUSALITY TESTING

In order to test for unit root and the order of integration of the variables in our data set, we employed the Augumented Dickey Fuller test. The ADF test for unit roots (Dickey and Fuller, 1979; 1981) indicates whether an individual series, say Y_t, is stationary or not. Existence of unit roots in a series denotes non-stationarity. The concept of Cointegration, introduced by Granger (1981), is perhaps the most appropriate test for the determination of long-run equilibrium relationships in economics because Cointegration is the statistical implication of the existence of a long-run relationship between economic variables (Thomas, 1993). In other words, from a statistical point of view, a long-term relationship means that the variables move together over time so that short-term disturbances from the long-term trend will be corrected (Manning and Andrianacos, 1993). A lack of cointegration suggests that such variables have no long-run relationship: in principal they can wander arbitrarily far away from each other (Dickey et. al., 1991).

Also, the Error Correction Mechanism which specifies the short run adjustments dynamics is employed to correct any deviations from the long run equilibrium relationship between the dependent variable and the explanatory variables.

In addition, the Granger causality test was applied in this study as a means of ascertaining causality between total crime and the independent variables. By definition (Granper, 1969), an economic series X_t is said to granger cause Y if changes in X_t must precede changes in Y_t based on the axiom that the past and present may cause the future but the future cannot cause the past (Granger, 1980). Basically Granger measures precedence and information content.

RESULTS AND DISCUSSION

Stationarity tests: the variables for this study were tested for stationarity by conducting the Augmented Dickey- Fuller (ADF) unit root test. ADF tests can be applied on the variables in levels and first differences to check for unit roots.

Table 4:Stationarity Tests of The Variables

Variable	ADF	Stationarity status
Ltoc	-3.313485	Non-stationarity
Lmic	-3.324133	Non-stationarity
Lsec	-2.983822	Non-stationarity
Linc	-2.404879	Non-stationarity
Lint	-3.590519	Non-stationarity
Une	-2.324078	Non-stationarity
Δtoc	-3.529559	Stationarity
Δmic	-3.729273	Stationarity
Δsec	-3.601541	Stationarity
Δinc	-3.895896	Stationarity
Δint	-4.832400	Stationarity
Δune	-6.265944	Stationarity

Source: Authors' computation(At 5% significant level)

The results of the stationarity tests in Table 4 at levels show that all the variables are non-stationary at level. However, after differencing all the variables once, they are all integrated of order 1 at 5% significance level.

Cointegration analysis: Since all the variables have the same order of integration, the next step is to determine the existence of cointegrated relationship among the variables.

Table 5: Johansen Cointegration Tests Series: INC, INT, TOC, UNE

Hypothesized No. of CE(s)	Max-eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.715076	50.55129	47.85613	0.0273
At most 1	0.435084	20.41849	29.79707	0.3949
At most 2	0.242032	6.712609	15.49471	0.6113
At most 3	0.002575	0.061879	3.841466	0.8035

Trace statistic and Max-eigenvalue value indicate 1 cointegrating equation at the 0.05 level
Source: Authors' computation

The cointegration results using Johansen test indicate the existence of a stable long-run relationship among the variables at the 0.05 level, this implies a long run relationship between crime, income, unemployment and internal security. However, cointegration of variables is not adequate for addressing whether total crime rate is responsive to income, internal security and unemployment. Thus, we need to obtain a parsimonious estimate of the regression to determine the influence of each variable on total crime rate series.

Empirical results: Since the evidence from the above result points out the existence of cointegration relationships between total crime and other variables, the study will proceed to Error-Correction Model by including error correction term (ECM_{t-1}) variable lagged in order to capture a parsimonious long and short run results as presented in Table 6.

Table 6: Parsimonious Error-Correction Result: Dependent Variable; LTOC, LMIC & SEC

	INC	INT	UNE	ECM	Pro	R^2	DW
TOC	0.558994 (0.1531)	-0.242114 (0.3115)	0.055204 (0.0369)*	-0.244168 (0.4559)	0.000148	0.812244	1.918466
MIC	-0.062551 (0.9080)	-0.244823 (0.4491)	0.058624 (0.0932)*	762.8752 (0.9815)	0.000031	0.847650	1.999789
SEC	12137.5 (0.3441)	-18411.29 (0.3441)	0.050732 (0.3441)	33063.58 (0.3441)	0.005982	0.685171	2.324260

In parentheses are the probability values
** rejection of null hypothesis at 5% significance level.*
Source: Authors' computation

Error-correction model: An important feature to notice is the coefficient of the parameter of error correction term (ECM). As shown in the parsimonious results, the coefficient of error term is not significant but correctly signed in the model. Also, a close observation of the result showed that the coefficient of income and internal security are correctly signed, but it is only the coefficient of unemployment rate that is significant and properly signed. The results indicate further that total crime rate is not significantly responsive to income and internal security given that these variables are statistically insignificant at 5% level. Also the speed of adjustment is low as indicated by the error-correction term (0.244). This implies the difficulty of the determinants to adjust rapidly to curbing crime. From the parsimonious results, it can be deduced as implied by the signing of most of the determinants that firstly, high unemployment rate induces crime, of all types of crime series (total, minor and serious). Secondly, increase in the income level of Nigeria will induce total crime and serious crime but the effect of such increase will reduce minor crime, this shows that people who are involved in minor crime are basically poor people with low income levels because crime is committed out of need and not greed. The positive effect on total and serious crime explains the prevalence of crime among the powerful and those in authority in Nigeria. Thirdly, high expenditure by government on internal security will curb all series of crime, total, minor and serious.

Causality test: The Pairwise Granger causality tests in Table 7 show that the direction of causality between total crime and income is unidirectional and that causality runs from income to total crime. The test is statistically significant. This is perhaps the case in Nigeria, where the level of poverty is very high, as a result, people are easily lured into committing crime not out of greed but borne out of need.

The direction of causality between total crime and internal security is also unidirectional and causality runs from internal security to total crime. The implication is that when government increases its expenditure on internal security which majorly includes the training and provision of sophisticated equipment and ammunitions necessary to combat crime and upgrading of the salary structure of police, they will be more inclined towards efficiency and thus, when people feel that they will caught and sanctioned when they commit crime, they are likely not to. The causality result on unemployment and total crime shows that there is no causal relationship between the two variables. The result seems to suggest that many who are involved in crime are criminally minded and possess criminal traits, it is not because of the fact that they are unemployed.

Table 7: Causality Test between Total Crime and Income, Internal Security and Unemployment Rate

Variable(X)	INC ≈ X	X ≈ INC	INT ≈ X	X ≈ INT	UNE ≈ X	X ≈ UNE
TOC	5.02226*	0.95761	3.35084**	1.16160	0.18939	2.05302

** denotes rejection of null hypothesis at 1% significant level and*
*** 5% significant level*
Source: Authors' computation

CONCLUSION AND RECOMMENDATIONS

The study was designed to analyse the effects of socio economic determinants of crime in Nigeria by estimating the impact of poverty, unemployment and internal security on crime series.

The analysis depicted the existence of a long run relationship between crime, income, unemployment and internal security. Also, high unemployment rate induces crime in the long-run but not in the short-run. Though, it would seem that income and internal security are not significantly responsible for total crime rate in Nigeria. Unemployment was discovered to be the most significant determinant of crime, while the analysis showed that provision of better and efficient total protective services will curb crime and that poverty seems to be the reason while Nigerian engages in minor crime and offences. The study also discovered that causality only runs from income to crime and from internal security to crime and not vice versa while there is no causal relationship between crime and unemployment in Nigeria.
The study recommends adequate and efficient monitoring and implementation of the various laudable policies and programmes aimed at reducing poverty and unemployment in Nigeria.

Also, consciously improving the standard of protection/ security equipment and services in the nation would go a long way in curbing crime. People who desist from committing crime if the environment is not conducive and the probability of been caught and sanctioned are high.

Finally, the issue of corruption should be dealt with or else even when disbursements are made, the contracts/policies are not implemented.

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