

CRIME INCIDENCE IN URBAN CENTERS OF SOUTHWESTERN NIGERIA: OYO STATE EXAMPLE.

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Abstract

In this paper, the pattern of crime distribution in Oyo State Nigeria, was examined over a period of fifteen years (1985-2000). The study focuses attention on criminal activities as affecting the liveability of residents of urban centers in the state. The investigation was carried out using ten selected local government areas that are renowned as black-spots crime area in the State. Four hundred Household-heads were administered questionnaires to solicit for information on causes, impacts and coping mechanism over crime incidence in the study area. Factor analysis and Multiple regression statistical methods were used to reduced bulky data into formidable standard and to assess the relationship between variables as means of rewriting the data to show differential patterns. Data analysis indicated that most residents in the area of study exhibited a significant higher-level of fears, but still want to remain in their areas. Implications for future planning to conform to modern city of the world.

Keywords: *Spatial Distribution, Crime Incidence, Black-Spots, Differential Pattern, Coping Mechanism.*

Introduction

The rise in urban crime rate is one of the major social problems facing Nigeria in recent time. The prevalence of crime in developing countries increases the volatility of the issue, for it pyramids one fear upon others. The concentration of violent crimes in major cities worldwide is heralded as an indicator of the breakdown of urban systems. The fear of crime and its correlates may lie behind the emergence of urban law, order, political movement, and the widespread adoption of tough anti-crime stances by civic leaders in recent years (Omisakin, 1998). In many cities of Nigeria, criminal activities and violence are assuming dangerous tendencies as they threaten lives and property, the national sense of well-being and coherence, peace, social order and security, thus, reducing the citizens' quality of life. As the nation

becomes increasingly urbanized, the traditional structures and value system, which were, once cohered and served as buffer and restricted criminal behaviours have been severely undermined. (Agbola, 2002).

Nigerians nowadays find it difficult to sleep with their eyes closed and they tend to live one day at a time with the fear of uncertainty if they will see the light of tomorrow. They are especially afraid of armed-robbers, paid assassins, political thugs and other criminals who assess life as being worthless. Whereas, Nigerians find it difficult to rest their belief on police protection, Nigeria is under policed with an average of one police officer to 5000 Nigerians, compared to that of one police officer to 400 persons in the developed world. Nigerian police are at times in collusion with the men of the underworld

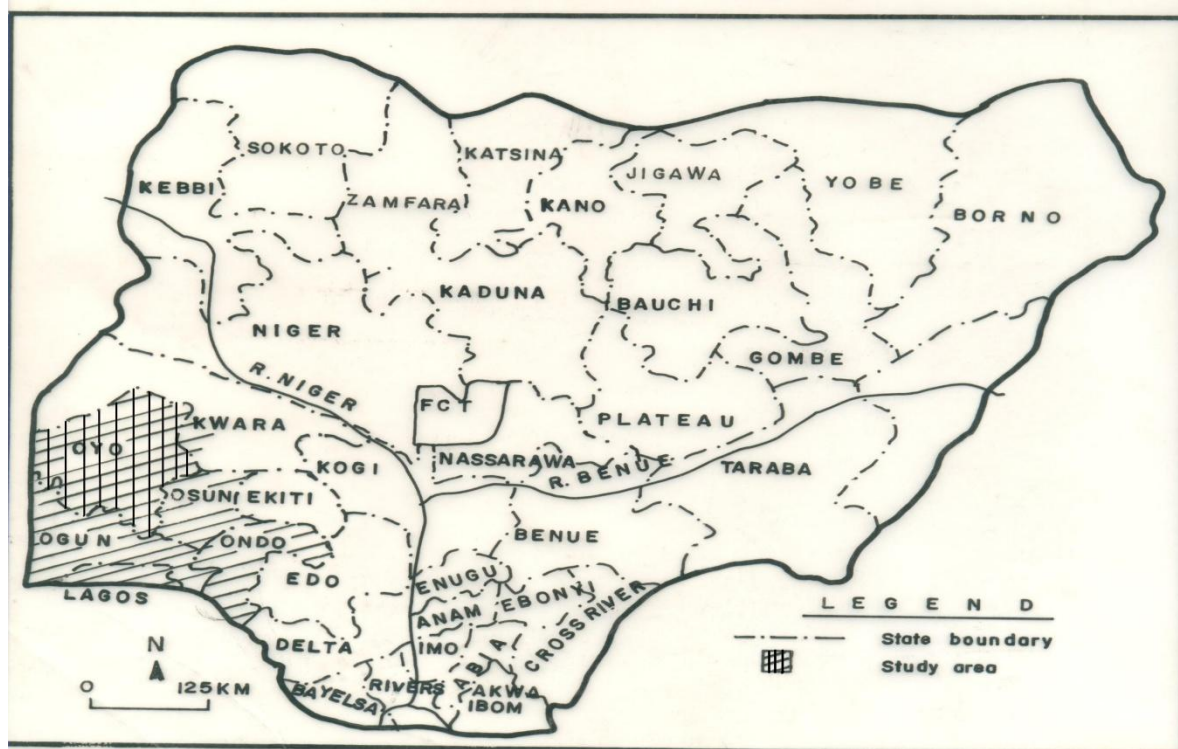


Fig. 1.1 : Map of Nigeria showing the study area. Source: adapted from National atlas, 1988.

Source: Adapted from the National Atlas, 1988.

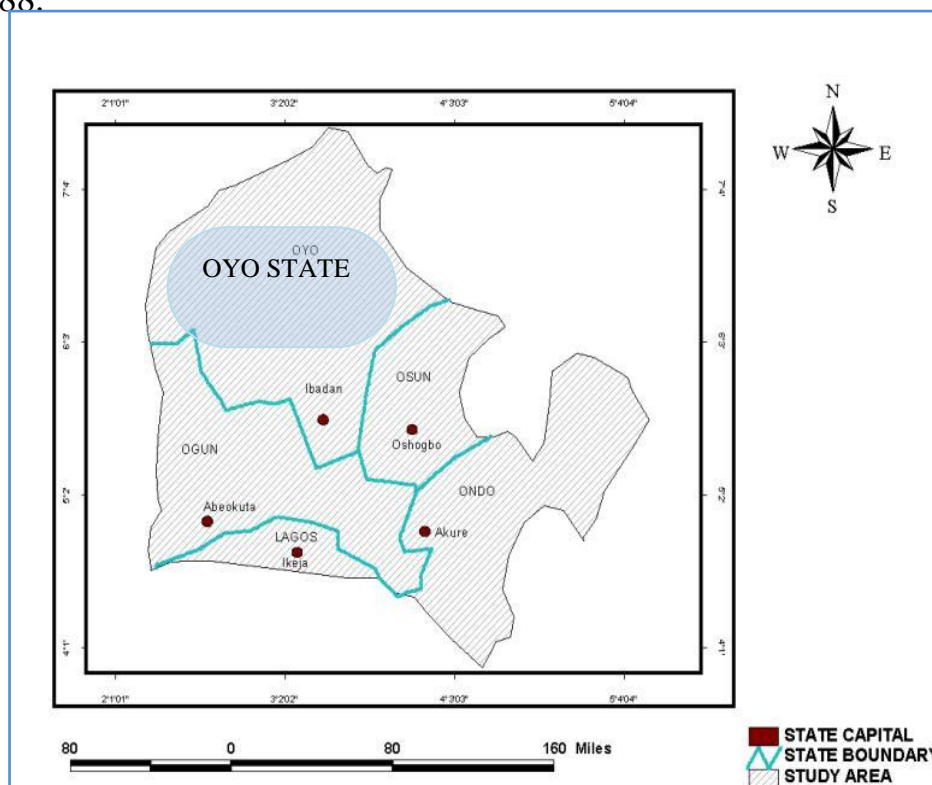


Fig.2. Oyo State, Southwestern Nigeria.

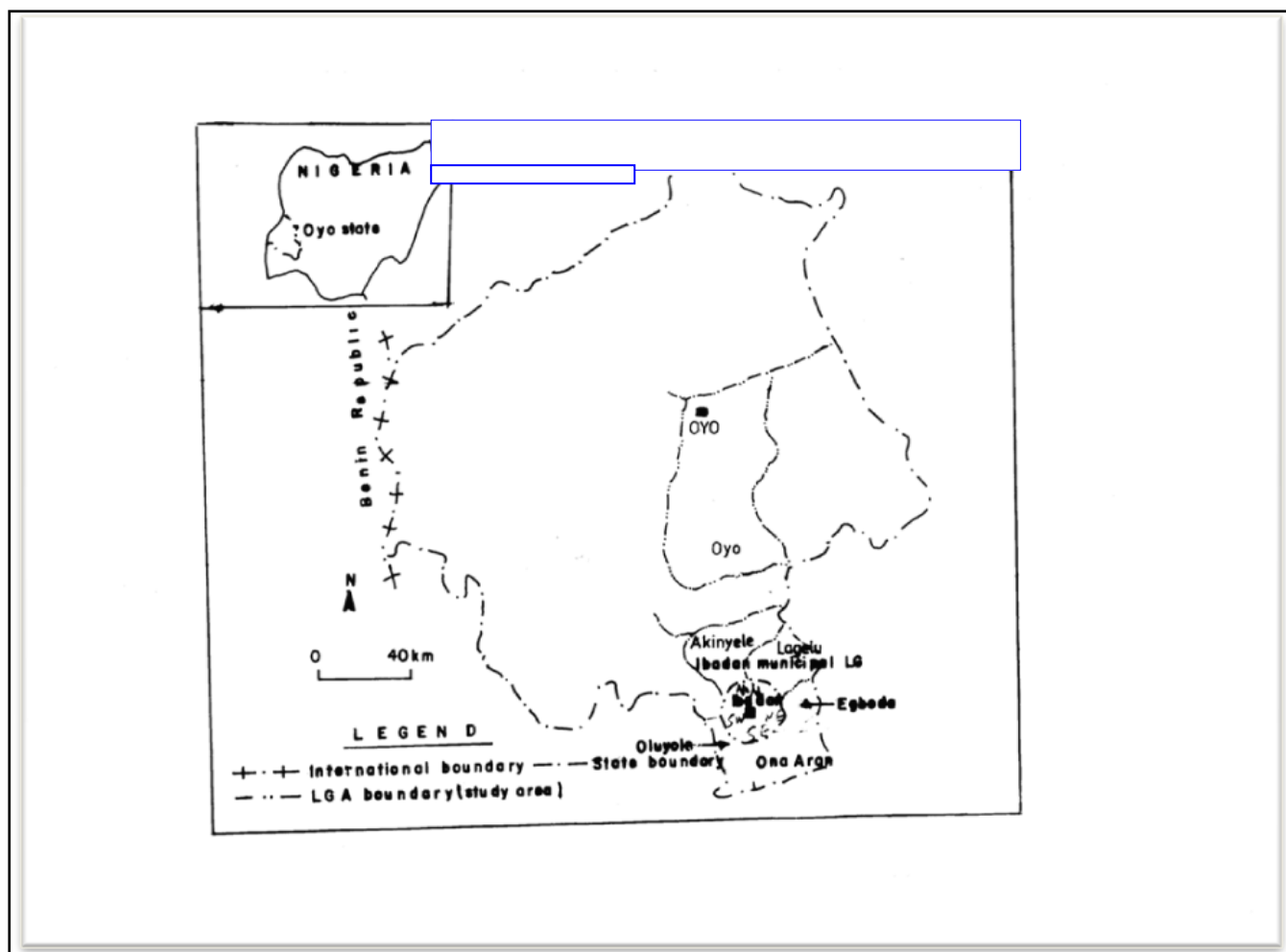


Fig.3. Ibadan Metropolis, Oyo State Nigeria

Methodology

The data required for this study was mainly secondary and this was obtained from the security personnel from zone eleven of the Police Zonal Command Southwestern Nigeria. The bulk of the data was reduced into twenty three (23) variables which were also categorized into Crime Against Person, Crime Against Property, and Crime Against Lawful Authority (see Table 1). This twenty three variables were later re-written in an attempt to identify the most salient variables to adapt in explaining the main spatial distribution of crimes in the study area. Aderamo (2000) and Ahmed (2010) used factor analysis in the spatial pattern of Intra-Urban Trips in Ilorin and Trend

and Pattern of Crime in Southwestern Nigeria respectively. Thus the method is considered as the most suitable for the task of separating factors and identifying development indices for urban planning. The reasons include; differentiation of patterns of crime distribution within the state, it also helps to identify group of interrelated variables as a way of searching for order in a large volume of data, among others. On the other hand, multiple regression was used in the work to derive a new model which best used as a means of predicting urban crime pattern in the study area- Oyo State. The sampled areas were ten Local Government Area from thirty-four in the state, these include; Oyo, Akinyele, Egbada, Oke-Are, Bere, Lagelu, Oluyole, Ona-Ara, Ido and Ibadan NW and

SE of the Municipal. They were selected as a result of their location proximity to Ibadan the state capital of Oyo state which

is a gate-way to many other major urban centers and states in South Western Nigeria.

Table 1. Categorization of Crime Incidence.

Index Crime	Organized Crime	Professional Crime
Murder	Armed robbery	Cheating
Manslaughter	Extortion with menace	Coining Offence
Attempted murder	Theft and stealing	Gambling
Suicide and attempted suicide	House breaking	Breach of public peace
Grievous harm and wounding	Store breaking	Perjury
Assault Child stealing	False pretence	Bribery and corruption
Child labour / slavery	Forgery	Escape from lawful custody
Rape and indecent assault	Receiving stolen property	Traffic offence
Kidnapping	Unlawful possession of property	Liquor offence
Un-natural offence	Arson	Fire-arm offence
Others	Computer Scams	Narcotic offence
	Others	Others

Source: Adapted from Omisakin (1998), and modified by the Authors.

Since the major tasks in the study are to identify, organize, and explain the pattern and trend of crime in Oyo State, Southwestern Nigeria, it becomes imperative to apply appropriate methods of research enquiry that is suitable for our huge database that go along with objectives set. Thus, the Factor Analysis technique, Time-Series Analysis and Multiple Regression Method were adopted for this work in succession: The first step was based on the use of Factor Analysis in as to reduce the volume of data collected on criminal cases in to a formidable standard. With this technique, twenty three variables used, this however, were utilized on the basis of their respective surrogate measures. The second step used results obtained from the factor analysis as input into the Multiple Regression Analysis which also explained the most salient factors that determined the major causes of crime incidence in the study area. Thirdly, the Time Series Analysis explained in sequence the trends of crime over time in selected urban centers in Oyo State respectively. Olawepo and Ahmed (1999) used this same method to explain the 'Factorial Ecology of a Traditional Urban

Centre of Ilorin-Nigeria.' Similarly, Oyebanji (1981) and Adedayo (1989) applied factor analysis to study 'the Geography of Crime', and Spatial Inequality in Kwara State Nigeria' respectively.

Results and Discussions

In order to assess the relationship that exists between the selected variables of crime under investigation, a correlation matrix for each factor executed was put into computerized form. The correlations among the twenty three variables used could be seen in Table 2. By putting into consideration values that are larger than +0.60, we can observe that many of the variables are closely related. Though, the pattern of values that are significant are shown in two levels; those correlations that are significant at 0.01(99% at 2-tailed) level and at 0.05 (95%-at 1-tailed). But the higher significant levels are seen to be common with 0.01 significant levels. For example, there is high correlation at about eleven different levels. Thus: between murder and attempted murder (Cr1 and Cr2), between assault and, demand with

menace (Cr1 and Cr10). Also between grievous wound and bribery (Cr2 and Cr8) child stealing (Cr5 and Cr12). Also between unlawful arms possession and breach of peace (Cr5 and Cr13), theft/stealing and perjury (Cr9 and Cr14), bribery (Cr12), suicide and arson (Cr20 and Cr22).

Succinct to say, all the crime variables are expected to determine the rates of criminality in the area of study, with its immeasurably determinant indices.

The crime variable list on the other hand, are expected to be the basic access for finding not only the rates in which crimes pervade, but also the pattern in which the distribution of crime development forms in the area of study. Ideally, the prominent pattern of correlations that are of greater significant among the twenty three variables as described above and are in conformity with the loadings of different values of components that emerged.

Table 2. Matrix of Inter-Correlation on Crime Measures in Oyo State.

Variables:	Cr1	Cr2	Cr3	Cr4	Cr5	Cr6	Cr7	Cr8	Cr9	Cr10	Cr11	Cr12	Cr13	Cr14	Cr15	Cr16	Cr17	Cr18	Cr19	Cr20	Cr21	Cr22	Cr23	
Cr1	1.000																							
Cr2	.667*	1.000																						
Cr3	-.117	.053	1.000																					
Cr4	.149*	.236*	.223**	1.000																				
Cr5	-.08**	.062	.545**	.383*	1.000																			
Cr6	-.065	.106	.571**	.106	.453**	1.000																		
Cr7	-.101	-.027	.212**	.313*	.241**	.101	1.000																	
Cr8	.316*	.669	.239**	.131	.192**	.165*	.125	1.000																
Cr9	.164*	.074	.530**	.147*	.496**	.596**	.239*	.186*	1.000															
Cr10	.609*	.571*	.017	.065	-.186*	.016	-.029	.38**	-.059	1.000														
Cr11	.541*	.349*	-.046	.042	-.219**	-.023	-.025	.140	-.125	.346**	1.000													
Cr12	.400*	.164*	.504**	.306*	.814**	.453**	.245*	.058	.524**	-.318**	.272**	1.000												
Cr13	.503*	.249*	.346**	.135	.665**	.284**	.281*	.018	.441**	-.405**	.353**	.722*	1.000											
Cr14	.220*	.027	.500**	.043	.554**	.537**	.308*	.195*	.611**	-.090	-.147*	.619**	.619**	1.000										
Cr15	.055	.036	.582**	.157*	.303**	.718**	.140	.071	.420**	.120	.146	.371**	.152	.375**	1.000									
Cr16	-.142	.223*	.271**	-.036	.380**	.313**	.006	-.144	.347**	-.220**	-.076	.411**	.481**	.431**	.269**	1.000								
Cr17	.225*	-.119	.577**	.109	.481**	.581**	.198*	.105	.435**	-.144	-.087	.543**	.343**	.491**	.555**	.320**	1.000							
Cr18	-.104	-.138	.292**	.240*	.072	.319**	.059	.017	.302**	-.020	.036	.195**	.269**	.457**	.348**	.393**	.275**	1.000						
Cr19	.479*	.268*	-.006	.152*	-.076	.073	-.004	.185*	-.103	.298**	.256**	-.203**	-.308**	-.172*	.197**	-.274**	.006	-.157*	1.000					
Cr20	.170*	-.032	.290**	-.096	.334**	.289**	-.040	.083	.308**	-.077	-.092	.349**	.522**	.442**	.215**	.539**	.207**	.351**	-.276**	1.000				
Cr21	.123	.121	.209**	.202*	.005	.200**	.356*	.054	.126	.345**	.164*	.016	-.090	.113	.273**	-.150*	.207**	-.003	.125	-.329**	1.000			
Cr22	.188*	-.048	.249**	-.027	.232**	.246**	.054	.029	.262**	-.079	-.157*	.292**	.511**	.460**	.177*	.473**	.185*	.371**	-.221**	.839**	.206*	1.000		
Cr23	.510*	.237*	-.120	.064	.395**	-.144	.019	.041	-.217**	.563**	.314**	-.441**	-.451**	.326**	.094	-.179*	-.226**	-.085	.285**	-.130	.415*	-.120	1.000	

Source: Authors' Fieldwork 2009.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The next segment discusses the pattern and distribution of crime incidence as they were committed and reported in Oyo, State in Southwestern Nigeria, from 1985 to 2000. Twenty three bulky data (crimes) were reduced to five latent but standard

variables. Using principal component method of extraction, the latent crimes retained and accounted for 67.5%, this seems reasonable enough to justify explanation as it is done below (see Table 3).

Table 3. Loading on Measures of Crime

Type of Crime	Unemployment Rate Factor (I)	Rural/Urban Migration Syndicate (II)	Inadequate No. Of Police Factor (III)	Family Responsibility/ /Obligation Factor (IV)	Drug Abuse/ Trafficking Factor (V)
Murder	-.01	.53	-.15	.66	-.03
Attempted murder	-.08	.21	-.05	.89	.09
Suicide	.73	-.12	.16	.12	.17
Grievous wound	.10	-.20	-.15	.36	.57
Assault	.50	-.60	.16	.25	.30
Child stealing	.85	-.02	.13	.05	-.05
Rape	.13	-.00	.07	-.07	.79
Kidnapping	.12	-.05	.07	.78	.04
Unnatural offence	.64	-.19	.25	.11	.19
Armed robbery	-.09	.62	-.01	.54	.12
Demand with menace	.02	.54	-.09	.31	.11
Theft/stealing	.54	-.06	.23	-.01	.30
Burglary	.28	-.57	.53	-.11	.31
House breaking	.58	-.25	.47	.01	.23
Forgery	.84	.21	.07	.00	.01
Bribery	.34	-.15	.60	-.16	-.01
Perjury	.78	-.17	.09	-.03	.05
Receiving stolen goods	.44	.21	.50	-.21	-.14
Unlawful arms poss.	.18	.25	-.44	.37	-.07
Arson	.17	-.11	.87	.11	-.14
Breach of peace Escape from custody	.29	.47	-.22	.01	.64
Computer scam	.12	-.08	.87	.01	-.08
	.15	.77	.03	.13	.24
Eigen Value	4.50	3.27	3.12	1.92	1.83
% of Variance	19.55	14.20	13.58	11.78	8.43
Cumulative %	19.55	33.75	47.32	59.10	67.44

Source: Authors' Computer Output, (2010).

Spatial Pattern of Crime in Oyo State

Factors Explanation

Table 3 indicates the relative importance of the factors with eigen values greater than one. In other words, the factors cover all the variables that are responsible for the causes and effects of crimes commitment, even though, there

are variability in the contributions of the said factors. We can also say that we interpret the components as representing groups of variables. That is, we only considering component loadings greater than +0.60 and labelled the components accordingly. The varimax rotated factor loadings of the original data set are

depicted in Table 4.27. For our attention, factor I accounts for 19.55% of the total variance explained with its significant positive loading. That is, Crimes under factor I, are loaded heavily on variables 1, 2, 3, 4, 5 and 6 respectively. This factor is tagged Condition of Unemployment Rate. The characteristics of this factor tend to show that there are more people that take into crimes when they are unable to meet their family needs and obligation. Factor II exhibits high positive loadings on variables 7, 8, 12, 20 and 22 and accounts for 14.20% of the total variance. The factor is termed Rural/Urban Migration Syndicate. Due to the belief that there are more employment opportunities in major urban centers, many able bodied youths drift to the urban centers like Ibadan, Oyo and other areas in Oyo State.

Factor III explained 13.58% of the total variance has significant positive loadings on different crimes committed and reported. Most of the crimes committed could have been curtailed if there were more security personnel in the selected areas of study in Oyo State; hence this factor is referred to as Police Inadequacy Factor. This factor loaded

highly on variables 6, 11, 13, 14, 15, 16 and 17.

Factor IV on the other hand, accounts for 11.78% of the total variance explained and is loaded heavily on variables 18, 19 and 20. These are crimes that have to do with personality (crime against persons). Thus are labeled Family Responsibility/Obligation Factor. Most of the obligations are not met due to meager income of the household heads. Factor V accounts for 8.42% of the total variance and is basically an aggregate measure of positions which some people hold as in the community. For instance, some people aid or abet crimes like; drug abuse and trafficking. Thus, this factor is termed Drug Abuse/Trafficking Factor. Factor V is loaded heavily on variables 21, 22, and 23 (Rape, Breach of Public Peace and Grievous wound) respectively.

The next item indicates factor scores of five components that were computed into divergent graph (Table 4) which later put into graphic illustration for the purpose of depicting spatial variations in the distribution of crime in Oyo State (Fig.3).

Table 4. Distribution of the Component Scores on Measures of Crime in Oyo State

S/No.	Variance Component	I	Component II	Component III	Component IV	Component V
1.	Child Stealing	0.852	0.000	0.128	0.000	0.000
2.	Forgery	0.844	0.210	0.000	0.000	0.000
3.	Perjury	0.778	-0.173	0.000	0.000	0.000
4.	Suicide	0.733	-0.115	0.160	0.122	0.186
5.	Unnatural Offence	0.641	-0.197	0.253	0.111	0.186
6.	House Breaking	0.575	-0.245	0.473	0.000	0.234
7.	Computer Scams	-0.154	0.786	0.000	0.125	0.241
8.	Armed Robbery	0.000	0.622	0.000	0.538	0.118
9.	Assaults	0.504	-0.604	0.158	0.249	0.304
10.	Theft/Stealing	0.544	-0.599	0.233	0.000	0.300
11.	Burglary	0.281	-0.574	0.530	-0.110	0.307
12.	Demand with menace	0.000	0.536	0.000	0.305	-0.106
13.	Escape from custody	0.115	0.000	0.873	0.000	0.000
14.	Arson	0.177	-0.110	0.869	0.105	-0.140
15.	Bribery/corruption	0.340	-0.154	0.601	-0.164	0.000
16.	Recev. stolen goods	0.437	0.214	0.501	-0.214	-0.141
17.	Unlawful arms possess.	0.181	0.253	-0.436	0.370	0.000
18.	Attempted murder	0.000	0.208	0.000	0.890	0.000
19.	Kidnapping	0.122	0.000	0.000	0.775	0.000
20.	Murder	0.000	0.533	-0.151	0.660	0.000
21.	Rape	0.126	0.000	0.000	0.000	0.787
22.	Preach of peace	0.296	0.465	-0.215	0.000	0.636
23.	Grievous wound	0.101	-0.203	-0.153	0.360	0.572

Source: Author's Computer Output, (2010).

Incidence of Crime Model

Modeling of crime incidence is imperative simply because such a model will assist in resolving the problems of crime cases in Oyo State and Nigeria in general. Because such a model can further be used to develop a robust mathematical model which will further aid the prediction of criminal perpetration in Oyo state. Therefore, spatial distribution of crime incidence in Oyo State can be best predicted with equation 1.

In addition to the above discussion, Stepwise Regression Analysis was put forward in order to find a way of isolating the most important factor-defining variables sustained from the factor analysis technique. The method also assists in deriving a model, which can be used for predicting urban crime patterns in Oyo State, southwestern Nigeria. As a reminder, the result of the factor scores

derived through the use of factor analysis technique equally served as input into stepwise regression model.

$$Y = 3691344.4 - 289265 \text{ CONUMRATE} + 457743.9 \text{ RURMIGRATE} - 214200.5$$

$$\text{POLINADQUACY} + 243433.5$$

$$\text{FAMOBLIGATION} - 59518.3$$

$$\text{DRUGTRAFFICK. (eq. 1)}$$

$$(R^2=80.6\% \text{ std error } 24.4)$$

The above implied that explanation of spatial distribution of crime in Oyo State, should be sought in the selected five variables which are accessibility to condition of unemployment rate, rural-urban migration, police inadequacy, family obligation and drug abuse/trafficking. However, these findings also confirmed somewhat really happened all over the world most especially among the

developing countries in terms of crime perpetration and spatial distribution.

Conclusion

This research work has eventually served as an eye-opener to some hidden facts about criminal activities in Oyo State, Southwestern Nigeria. The work has demonstrated the effect of social structure on human beings leading to crime incidence in various hot-spots in the state. The reaction of human beings for survival within the social structure has constituted a corpus of knowledge relevant to examination of youths engagement in urban violence. Youths who are found in criminal activities absorb crime as a method of adjusting to social expectations. To eradicate crimes, therefore fundamental societal survival techniques must be dissociated from crime. This requires a fundamental restructuring of the society towards productive engagement in the sector that can provide the need and positive aspiration of the people in urban area. It is when this is done through educational institutions, community participation in productive engagements, and above all, where governments perform their tasks appropriately that the youths become productive members of the cities within where they live. To reduce their perceived negative attitude, societal negatives must be curbed.

References

- Adebayo, A.F. (1989); "Spatial Inequalities in Economic Development: The Case of Part of Southwestern Nigeria". *Unpublished Ph.D. Thesis*, University of Ilorin.
- Aderamo, A. J. (2000); Spatial Pattern of Intra-Urban Trip in Ilorin, Nigeria. In *Geo-Studies Forum*, International Journal of Environmental and Policy Issues, (1 & 2): 46-57.
- Agbola, T.(1997); *The Architecture of Fear, Urban Design and Construction Response to Urban Violence in Lagos, Nigeria*. IFRA/African Book Builders.
- Agbola, T. (2002); A Study of Urban Violence and Insecurity in Abuja. *Journal of the Nigerian Institute of Town Planners (JNITP)1(XV):59-78*.
- Ahmed Y.A. (2010); Trend and Pattern of Urban Crime in Southwestern Nigeria, *Unpublished Ph.D. Thesis*, University of Ilorin, Nigeria.
- Alemika, E. (2003); "Nigeria Recorded 10,345 Robbery Cases in Four Years" *The Punch*, News Paper, Monday 7th July, Lagos Nigeria.
- Dan Bazau, A.B. (1994); *Law and Criminality in Nigeria. An Analytical Discourse*, University Press, Plc.
- Harries K.D.(1994); *Crime and the Environment*, Springfield, Illinois.
- N.P.C. (1991); National Population Commission of Nigeria 1991 census: *Census News*, Lagos, Nigeria.
- Olawepo, R.A. and Ahmed, Y.A. (1999); "Factorial Ecology of a Traditional Urban Centre:" A case Study of Ilorin, *Centre Point ; A Journal of Intellectual, Scientific and Cultural Interest*, 9(1): 63-76. Humanity Edition. Published by the Library and Publications Committee University of Ilorin, Nigeria.
- Omisakin, I.S. (1998); Crime Trends and Prevention Strategies in Nigeria: A Study of Old Oyo State, *NISER Monograph*, Series No.9. NISER, Ibadan.
- Oyo State Police Command (1996); *The Abstract of Crimes and Offences Statistics 1992-1996*, Ibadan Southwestern, Nigeria.
- Oyo State Criminal Investigation Department (2005); *Criminal Statistics*, Oyo State Police

Headquarters, Eleiyele, Ibadan
Southwestern, Nigeria.
Oyebanji, J. O. (1981); "Regional
Inequalities in Economic Growth

and Development: A Case Study
from Nigeria. Journal of the
Nigerian Institute of Town
Planners.1 (1):71-85.