Correlates of Residents' Response to Crime in Nigerian Cities

Ladoke Akintola University of Technology

Received: 14 December 2012 Accepted: 5 January 2013 Published: 15 January 2013

Abstract

The paper examines the socio economic attributes of residents (SEC); building and environmental features (BEF), residential crime magnitude, fear of crime events, fear of neighbourhood and households? safety measures in Ibadan, Zaria and Owerri with a view to establish a relationship between them. Four indices were developed. These are ?Residential Crime Magnitude? (RCM), ?Fear of Crime Events Index? (FCEI), ?Fear of Neighbourhood? (FNI) and ?Household Safety Measures Index? (HSMI). The study observed a significant relationship between low attributes of BEF, low attributes of SEC, low attributes of RCM and low attributes of HSMI, low attributes of FNI and low attributes of FCEI. Among SEC, BEF and RCM, BEF was identified as the strongest dependent variable informing residents? response to crime. Thus any meaningful intervention at crime control must first begin with decision on building and environmental features that discourages crime incidence and reduces fear of crime.

Index terms— residential area, residents, response, crime, socio-economic, building, environmental features, fear, safety measures.

1 Introduction

uman beings are created to respond to stimuli. The response could be internal or external. In the same vein residents respond to crime emotionally and physically. In this study fear is considered as the emotional response to crime while the use of household safety measures is taken as the physical response. Fear is the foremost response to experience or knowledge of crime incidence (Afon 2001), which under normal condition dictates the type as well as extent of household safety measures to be employed. It could also influence the preparation and the ardence of criminals thereafter. On the other hand the availability of targets in absence of capable guardian is a motivating factor for incidence of crime. Thus, crime incidence, fear of crime and physical response to crime together with other factors such as socio-economic and environmental features could constitute a cycle. Residents may build confidence on the strength of safety measures taken at household and neighbourhood levels; thus affecting their level of fear.

Four notable categories of response to crime were identified in the literature: control through the convectional justice system (Walklate, 1996;Shaftoe, 2002), social crime prevention (Aguda, 1994;Shaftoe, 2002), African Traditional Protective Devices, ATPDs Authors ? ? : Department of Urban and Regional Planning, Ladoke Akintola University of Technology, Ogbomoso. E-mail : foadigun@lautech.edu.ng (Agbola, 1997) and Crime Prevention through Environmental Design (CPTED).

Criminal Justice System is the most commonly used crime control measures. Yongcho **??**1974) described this approach as one, which involves the entire array of government institution that functions as the instrument of a society in enforcing the standard of conduct needed for the protection, safety and freedom of individual citizens, and for the maintenance of order. The task involves detecting, apprehending, prosecuting, treating and sanctioning the deviants. This method has been referred to as offender-centered strategy (Walklate, 1996).

The second measure is the social crime prevention which in the words of Shaftoe (2002) consist of "an interlocking series of interventions that enable people to lead a life where they do not have the inclination, motivation or need to offend against others, whether for expressive or acquisitive reasons". The next strategy

is Crime Prevention through Environmental Design (CPTED) which is an environment-centered strategy. It includes the specific targeting associated with situational crime prevention and the more general approach of designing out crime. The pioneers of this approach are Jacobs (1995) and Jeffery (1977) but its famous exponent is Newman ??1995) though ??oleman (1985) also worked extensively on it.

The manifestation of some these strategies in Nigeria are at different levels. Communities and individuals react to crime in Nigeria mostly from the ineffectiveness (or otherwise) of the criminal justice system in combating crime and insecurity in their areas (Agbola, 2002). Several studies have shown that residents' responses to crime in Nigeria are of various forms including crime reporting to police (though decreasing in use), individual preventive measure and collective activities against criminal occurrences (Agbola 1997;Afon, 2001, Agbola 2002;Abodunrin 2004;Oredein, 2006). Included among individuals' attempt at controlling crime are: construction of high walls around residences; construction of high fencing walls, massive gates and strong locks; use of Close Circuit Television CCTV; installation of lighting facilities at every corner of the residential environment; use of African power called "juju" or charm and total reliance on God Almighty for protection. Others include the use of dogs, guns, insurance schemes, special security door, burglar alarms, police patrol, window and door grills. On the community or collective level, night watchmen are employed to keep watch on neighbourhoods, gates are installed on streets, bumps or speed breakers are put on streets. Others include the use of warning signs to restrict movement and the use of community security check points. Vigilante groups (a variant of night watchmen) are used in some communities. These responses however vary among the three residential areas based on the diversity in social and economic characteristics of the residents as well as level of crime incidences. It has been argued that there are intricate connections and complex interrelationships between the environment in which urban dwellers live, incidence of crime and, by logical extension, their response to crime (Abodunrin 2004; Adeboyejo and Abodunrin 2005). Crimes occur not only within but are also influenced and may indeed be compounded by a wide ranging socioeconomic and environmental context, summarized in urban residential patterns of various cultural settings.

Therefore any study aiming at providing sufficient information to enable a solid conclusion useful for decision making must take cognisance of the complexities between residents' socio-economic attributes, building and environmental features typical of each residential area, crime incidence and residents' responses. Isolating a single variable for any substantive explanation may be a minor task out of the whole gamut because of the complexity of the relationship between these variables. Against this background this study examines the socio economic attributes of residents; building and environmental features, residential crime magnitude, fear of crime events, fear of neighbourhood and households' safety measures in Ibadan, Zaria and Owerri with a view to establish the relationship between them. This is done with the aid of canonical correlation statistic-a statistical tool which allows multiple dependent and independent variables in a single analysis. The three selected cities are traditional urban centres with phenomena growth in population and area extent, increasing level of urbanization and industrialization, as well as political and socio-economic prestige in the area. Zaria, Ibadan and Owerri (see ??ig 1) are respectively one of the major Hausa-Fulani, Yoruba and Igbo cities and as such, they are capable of reflecting the socio-economic and cultural attributes of the three regions selected.

2 II.

3 Research Methodology

The study utilized primary data obtained through questionnaire administered to residents. Information obtained includes residents' socioeconomic characteristics (SEC); building and environmental features (BEF); residential area crime experienced within six months (RCM); level of fear of crime events; level of fear of neighbourhood and level of usage of household safety measures (or residents' physical response to crime). Five, two and three local government areas in Ibadan, Zaria and Owerri respectively formed the sampling frame (see appendix 1). Localities within the three distinct residential areas were identified. All the low density residential areas surveyed in Owerri were selected from Owerri Municipal because areas that could be identified as low density areas fall under the jurisdiction of Owerri Municipal Local Government area.

The study employed a multi stage sampling technique. The random and systematic sampling techniques were used within the context of already stratified local government areas and the three residential zones. The first level of stratification was done on the basis of the delineated local government areas. The second level of stratification was based on identified residential areas. Localities with the features of the three residential areas were identified in each local government area and purposively selected for the study.

The first building in each randomly selected street was chosen at the discretion of the researcher. Subsequent selection was done at an interval of ten buildings. To cater for residents in landlocked portions of the core area where buildings are not accessible by roads, buildings were selected at uniform interval of every five building off the roads. The target population are the residents. A household was selected from each chosen building from where a resident not less than 18 years either male or female was sampled. The selected residents were investigated using a structured questionnaire. The structured questionnaire was distributed using a ratio of 3:2:1 in the high, medium Previous research efforts identified three major categories of residential areas which are distinct in social as well as physical attributes (Onokerhoraye & Omuta, 1986; Afon 2004). These are: low quality residential area usually (high density residential zone); medium quality residential area (medium density residential zone) and high

quality residential area (low density residential zone). In modern urban centres residential density is described in terms of floor area ratio and population. In traditional urban centre traditional/core, transitional and suburban residential areas represent the three residential areas highlighted above (Onibokun 1972). According to Okewole (1977) historically, the traditional core area is a pre-colonial development occupied by indigenous population and or the early settlers. This area is often found in the heart of the city **??**Onerkerhoraye & Omuta, 1985). The transitional residential area developed during the colonial era forms the next layer of development. The sub-urban/low density residential area could be pre and post independence developments. In cities of this nature socio-economic characteristics (such as level of education, occupation and income) and environmental quality are considered to vary inversely with density. These features were used in identifying the three residential areas. and low density residential zones in each selected city (see table 1). This is in line with the generally believed pattern of population distribution among residential areas (Adeboyejo and Onyeonoru, 2003). A total of 1164 copies of the questionnaire out of the 1220 scheduled for distribution were considered useful for the analysis. This represent 95.4 percent questionnaire recovery rate The first is the aggregate of crime experienced by households while the second was used in measuring what residents fear most in criminal attack and public disorder. The third: FNI was used in measuring fear of likelihood of crime incidences at certain period of time within the residential neighbourhood. The fourth index was developed to assess residents' level of usage of household safety measures HSMI (or residents' physical response to crime). Variables indicating FCEI and FNI were measured in the ranking scale of Likert as "very high" (5), "high"(4), "moderate (3)", "low"(2) and "very low" (1). The FCEI and FNI were obtained by dividing the summation of weighted value (SWV) by the total number of responses. The SWV of each variable is the addition of the product of the proportion of responses to it and the weighted value attached to each rating. This is done for each residential area. The mathematically expression is as follows: i; and Vi = weight assigned to variable i Some variables indicating HSMI were obtained in ranking scale of Likert as "very often", "quite often", "often", "seldom" and "not at all". These include use of special door locks, alarm system, burglar proofs on doors and windows, use of security dogs, sword/axe/club/stick, juju, gun and security guard(s).

HSMI was obtained by dividing the summation of weighted value (SWV) by the total number of responses. The SWV of each variable is the addition of the product of the proportion of responses to it and the weighted value attached to each rating. This is done for each residential area. The mathematically expression is as follows: Vi = weight assigned to variable i Other safety measures assessed as nominal data include material used for door, window, fence and tip of fence; and body responsible for neighbourhood security surveillance.

The variables in each of the groups highlighted above were summarized using factor analysis and their linear composites were extracted. Nineteen factors emerged from the analysis out of which six were selected and others regarded as residual because of their loading values and the fact that they are repetition of the selected ones (see appendix 2). The loadings of the variables under each group are listed in the descending order of loadings attached to them.

There after the relationship between all the groups was verified using canonical correlation analysis. Using Statistical Package for Social Scientist the study employs canonical correlation analysis to explain the relationship between the linear composites of socio-economic characteristics (SEC), building and environmental features (BEF), residential crime magnitude (RCM), indices of fear of crime events (FCEI), fear of neighbourhood (FNI) and households' safety measures (HSMI). The linearity of the relationship between ..... The general canonical model is given as:III.

4 Result and Discussion

The result of the correlation analysis is documented appendix 3. The correlation of set 1 (Ryy) comprises the correlations between variables of fear of criminals events (FCEI), fear of Neighbourhood (FNI) and households' safety measures (HSMI). These variables have positive correlation coefficients. This indicates that the correlation is uni-directional. The higher the attributes of the composites the higher the scores they obtain. In this context the higher the positive value of variables of fear of crime events index (FCEI), fear of neighbourhood index (FNI) and households' safety measures index (HSMI), the higher their attributes in the model. Considering the loadings in set 1, the absolute values of fear of neighbourhood FNI (.5804, .5737) is greater than fear of crime events FCEI (.5804, .3330). The index with the least absolute values is household safety measures HSMI (.3330, .5737). In order of importance the implication of this is that fear of neighbourhood is more crucial in the canonical correlation analysis performed than fear of crime events and household safety measures. = Inverse of correlation among composites of residential crime incidence (RCM), residents' socio economic characteristics (SEC) and building and environmental features (BEF) (Independent Variables IVs) characteristics and, building and environmental features on one side, and residents' response to crime (fear of neighbourhood, fear of crime events and households' safety measures) on the other side places fear of neighbourhood as the prime response to residential area crime incidence. In other words, residents' response to crime is first and majorly emotional in respect of fear of the likelihood of crime occurring at certain period of time within the residential neighbourhood (measured as FNI). The fear of crime events i. e. fear of what one could suffer during crime incidences is the second foremost emotional response to crime. Finally these emotional responses manifested in physical household safety measures employed.

The analysis produced three canonical variates. The correlation of the first pair of canonical variate (Root 1)

is .995 (see **??**ig 2). The eigen value for the correlation is therefore .990. Eigen value is the square of correlation r2=?1. The first pair of canonical variate have .995 correlation and overlap with .990 or 99.0% variance. The correlation of the second pair of canonical variate (Root 2) is .695 (see **??**ig 3). Similar to the procedure used for Root 1, the eigen value for Root 2 is .482. This connotes that the second pair of canonical variate have .695 correlation and overlaps with .482 or 48.2% variance. Source : Author's, 2010

In order to know whether the remaining correlations are truly zero the Bartlet's test of significance was computed and documented in table 2. For Root 1, X2 is 70.455 with P value of 0.000 at 99.99 % confidence limit. There is a significant overlap in the variability between variables concerned. This indicates that there is a significant relationship between variables of residential crime magnitude RCM, socio-economic characteristics SEC and building and environmental features BEF; and fear of crime events FCEI, fear of neighbourhood FNI and households' safety measures HSMI. The X2 for Root 2 is 9.346 with P value of 0.053 at 99.99 % confidence limit. The P value for Root 2 is significantly different from zero. This implies that there is significant overlap in the variability between the second pair of the canonical variates (Root 2). The X2 for Root 3 is 0.448 with P value of 0.503 at 99.99% confidence limit. This indicates that there is no significant overlap in the variability of the variables concerned. In canonical analysis the first pair of canonical variate is the first canonical extract and the strongest to be considered in the interpretation of the model (Tabachnick and Fidell, 2001) moreover the third pair of canonical variate had no significant overlap in the variability between the variables concerned. Thus the first and second will be interpreted in this study. 3 is the loading matrix of canonical correlation. For the first pair of canonical variate, fear of crime events (FCEI) correlates -.225; fear of neighbourhood (FNI) correlates -.722; households' safety measures (HSMI) correlates -.946 while residential crime magnitude (RCM) correlates -.046; socio-economic characteristics (SEC) correlates -.386; building and environmental features (BEF) -.697. The correlation of the first pair of canonical variate is unidirectional because the coefficients carry negative signs. This indicates that a low attributes of household safety measures (HSMI), a low attributes of fear of neighbourhood (FNI) and low attributes of fear of crime events (FCEI) is associated with a low attributes of building and environmental features (BEF), low attributes of socio-economic variables (SEC) and a very low attributes of residential crime magnitude (RCM). In other words variable of building and environmental features is stronger among the independent variable sets followed by socio-economic variables then residential crime magnitude. In this order they influence first level of installation and usage of household safety

The correlation for set 2 comprises of the correlation between the factors of residential area crime incidence (RCM), building and environmental features (BEF) and residents' socio-economic characteristics (SEC). The correlation coefficients of these are both positive and negative that is bidirectional. This implies that the higher the attributes of the factors the higher the scores they obtain. In this regard the higher the positive value of the composites of fear of crime events (FCEI), fear of neighbourhood (FNI) and households' safety measures (HSMI), the higher their attributes in the model. Among the loadings of factors in set 2, the absolute value of building and environmental features BEF (-.6842, .5500) is greater than that of residential crime magnitude RCM (-.3593, -.6842) while the least is socio-economic characteristics SEC (-.3593, .5500). This implies that residents' response to crime is first influenced by building and environmental features then residential crime magnitude and socio-economic characteristics.

5 Sets Canonical Variate Pairs

Variable set First Second Third measures, residents' level of fear or dread of likelihood of crime incidence in their neighbourhood and lastly fear of events associated with magnitude of crime within residential areas.

With the second pair of canonical variate fear of crime events (FCEI) correlates -.021; fear of neighbourhood (FNI) correlates -.552; households' safety measures (HSMI) correlates -.296 while residential crime magnitude (RCM) correlates -.984; socio-economic characteristics (SEC) correlates .518; building and environmental features (BEF) .708. The correlation of the second pair of canonical variate is bidirectional because the coefficients carry either positive or negative signs. This indicates that a low attributes of fear of neighbourhood (FNI), high attributes of household safety measures (HSMI), and a very low or insignificant attributes of fear of crime events (FCEI) is associated with a very low attributes of residential crime magnitude (RCM), high attributes of building and environmental features (BEF) and, a high attributes of socio-economic characteristics (SEC). Variables of building and environmental features are stronger among the independent variable sets followed by variables of socio-economic variables then residential crime magnitude. In this order they influence first households' safety measures then fear of crime events and lastly fear of neighbourhood. This implies that households in the high socio-economic class with high building and environmental features employed a high usage of households' safety measures, inhibiting crime incidence (low residential crime magnitude) thus resulting in low fear of crime events and fear of likelihood of occurrence of crime in the neighbourhood. This implies that residents with high socioeconomic profile with high building and environmental features could afford the installation of more household safety measures. This acts as deterrence to crime thus inputting confidence in households evidenced in low fear of neighbourhood and crime events.

The implication of the results of the first variate pair is that households with low building and environmental features, low socio-economic attributes, had low experience of crime as a result of high usage of household safety measures dictating a low usage of household safety measures then low level of fear of likelihood of crime incidences in the neighbourhood and low fear of what to suffer if crime occurs. Further implication is that residents with low

feelings of fear of crime in their neighbourhood had lower fear of crime events because they experience low crime incidences and are in the low socio-economic rung with low building and environmental features thus utilizes household safety measures minimally. Practically, when building and environmental features are poor and the residents are poor while crime magnitude in the area is relatively low, it follows that: household safety measures would be close to nil, fear of neighbourhood will be very low and the fear of crime events will be very low too.

It is important to interpret this correlation with the communalities which loads highly in each of these composite. A residential environment with low proportion of buildings used solely for residential purpose and low street lights with low proportion of residents with monthly income of #25,000: 00 -#70,000: 00; 1-4 persons per building, monthly income greater than #70,000:00, public service and vehicle ownership of 1-2 vehicles had low experience of crime of assaults, white collar crime and stealth/pretence. This scenario necessitated low use of barb wire on the fence, burglar proof on doors, alarm system etc. Then there is low worry of going out in the dark, risk of women going out in the dark and fear of women getting raped in the dark. Principal example of this scenario is the situation of the high density residential areas sampled in this study.

Since the strongest of the independent composite in this relationship is building and environmental features, thus policies or programmes targeted at addressing criminality in areas of low socioeconomic attributes with low residential crime incidences must pay careful attention to variables of building and environmental features. Such variables include use of buildings, use of street light in neighbourhoods, building type, access type, use of restriction signs within neighbourhood etc. Summarily a significant relationship has been established between socio economic attributes of residents; building and environmental features, residential crime magnitude, fear of crime events, fear of neighbourhood and households' safety measures. Thus, the third hypothesis set initially in this study is rejected.

6 a) Redundancy Analysis

The redundancy analysis reveals how much variance is extracted by each canonical variate from its own side and the other side of the equation.

7 3

.209 (20.9) .007

The three canonical variates pairs were considered here in order to ascertain the extent of the variance extracted from both the dependent and independent sides of the equation. This is done in order to account for total (100%) variance. The proportion of variance extracted by variables used is documented in table 4. The first, second and third canonical variates pair from the dependent composites extracted 48.4%, 6.3% and 1.2% respectively of the independent composites. Thus the dependent composites extracted a total of 55.9% variance of the independent composites. Likewise from its own side i.e dependent composites the first, second and third canonical variates pairs extracted 48.9%, 13.1% and 38% variance respectively. This produced a total of 100% variance. From the independent composites, first, second and third canonical variates pairs extracted 21.2%, 57.9% and 20.9% (totalling 100%) of the variance in favour of the independent side. On the other hand the first, second and third canonical variates pair extracted 21.0%, 28.0% and 0.7% respectively from the dependent composites. The independent composite thus extracted 49.7% variance from the dependent composites. This implies that 49.7 percent of the variation observed in residents response to crime i.e. fear of crime events, fear of neighbourhood and households' safety measures is extracted by variables of residential crime magnitude, building and environmental features and socio-economic characteristics.

IV.

8 Conclusion

The study employed the use of a robust statistical technique: canonical correlation analysis in determining the relationship between attributes of building and environmental features (BEF), socioeconomic characteristics (SEC), residential crime magnitude (RCM) and household safety measures (HSMI), fear of neighbourhood (FNI) and fear of crime events (FCEI). The relationship between incidence of crime, socio-economic characteristics and, building and environmental features on one side, and residents' response to crime (fear of neighbourhood, fear of crime events and households' safety measures) on the other side places fear of neighbourhood as the prime response to residential area crime incidence. In other words, residents' response to crime is first and majorly emotional in respect of fear of the likelihood of crime occurring at certain period of time within the residential neighbourhood (measured as FNI). The fear of crime events i. e. fear of what one could suffer during crime incidences is the second foremost emotional response to crime. Finally these emotional responses manifested in physical household safety measures employed.

This study therefore posits that there is significant relationship between low attributes of BEF, low attributes of SEC, low attributes of RCM and low attributes of HSMI, low attributes of FNI and low attributes of FCEI. The confirmation of a significant relationship between these six indices is an indication that crime control cannot be properly handled until all these aspects are taken care of. However BEF was identified as the strongest dependent variable informing residents' response to crime thus any meaningful intervention at crime control must first begin with decision on building and environmental features that discourages crime incidence and reduces fear of crime.

This is not to undermine other factors which show a relationship with response to crime. According to the result of this analysis when this is taken care of the feedback will be observed first on residents' perception of their vulnerability within their neighbourhood (FNI).

9 Global Journal of Human Social Science

Volume XIII Issue V Version I [1] [2]

Figure 1:

1

Source : Author's 2010.
Data analysis was both descriptive and inferential. Four indices were developed in this study. These are 'Residential Crime Magnitude' (RCM), 'Fear of Crime Events Index' (FCEI), 'Fear of Neighbourhood' (FNI) and 'Household Safety Measures Index' (HSMI).

Figure 2: Table 1 :

one who goes out before dawn likely to be attacked .803; risk of attack when out in the area in dark .779; afraid being alone anytime at home .721; afraid being alone in the night .717; afraid being alone in the morning .493; afraid being alone in the afternoon .423; afraid being alone in the evenings .279.

4. Building and Environmental Features (BEF): This factor extracts 43.377% of the total variance of the Cities data set. The variables concerned and their Residential Areas Total Retrieved Low Medium High 111 224 336 669 58 116 174 348 33 67 101 201 202 407 611 122 0 for analysis loadings is as follows: percentage residential use Ibadan 654 Zaria 319 Owerri 191 Total 1164 .835; percentage street lights .829; percentage flats .657; percentage duplex/bungalow .619; percentage access road .541; percentage security checking points .330; percentage first-floor .079; percentage restriction signs -.103; percentage ground-floor -.110; percentage street-bumps -.703; percentage residential/commercial uses -.889; percentage accessed by footpath -.902; percentage traditional/roomy building -.954. 5. Household Safety Measures Index (HSMI): This factor extracts 42.741% of the total variance of the data set. The loading of the variables under this component is thus: percentage barb wire 0.082; percentage burglar proof on doors 0.080; alarm system 0.079; iron/steel window 0.076; percentage iron/steel door 0.071; security dogs 0.063; security guard 0.061; barbwire fence 0.056; percentage burglar present 0.055; door locks 0.052; vigilante responsible for neighbourhood 0.051; percentage hedges as fence 0.048; percentage police responsible for neighbourhood security 0.033; sword/axe/club/stick 0.032; percentage glass panes/flush doors 0.022; burglar proof on windows 0.022; percentage concrete fence 0.020; percentage broken bottles on fence -0.084; percentage wooden window -0.78; percentage wooden doors -0.075; percentage hired security guard responsible for neighbourhood security -0.074; gun -0.064; percentage no fence -0.061; juju -0.052; percentage no burglar -0.012; percentage louver blades glass -0.007. 6. Socio-economic Characteristics (SEC): This component extracts 37.550% of the total variance of the organized private sector .101; percentage landlord -.097; percentage less than 10 years -.230; percentage unemployed -.461; percentage with no formal education -.473; percentage single -.491; percentage 18 - 30 years -.598; percentage female -.606; percentage indigene -.616; percentage less than #6,000:00 -.763; percentage no vehicle -.794; percentage greater than 10 persons/building -.882;.

The variables measuring fear of crime events loaded thus: female member of household raped .926; female household member tortured or beaten .909; destruction of car .894; self tortured or beaten .872; kidnapping .871; self raped .862; burning of cars .839; loss of one's life .833; burning of houses and properties .799; contacting HIV AID or venereal disease .754; killing of household member .698; money stolen .653; destruction of window/door locks/ burglary proof .647; shock or psycho imbalance .616; property carted away .554. 3. Fear of Neighbourhood Index (FNI): This

2

Root	X2	P value	R
Root 1	70.455	0.000	.995
Root 2	9.346	0.053	.695
Root 3	0.448	0.503	.181

Figure 4: Table 2 :

3

Source : Author's, 2010
Documented in table

Figure 5: Table 3 :

4

Year 2013
2 44
Volume XIII Issue V Version I
( ) F
Global Journal of Human Social Science

Canonic	Proportion of Variate	Proportion of Variate	Variate Pairs extracted from extrac
	3	.012 (1.2)	.380
	(38.0)		
Independent	1	.212 (21.2)	.210
side	(21.0)		
	2	.579 (57.9)	.280
	(28.0)		
	(0.7)		

Source : Author's, 2010

Figure 6: Table 4 :

Total
6 Zaria72 a. 2 components extracted. Hig

7 Sabon48 24 102 .699 .884 .249 .573 Comp
Gari
RR_security
dogs
RR_burglar
on
doors
RR_burglar
win-
dows
RR_sp
door
locks
RR_gun FCEI_loss of one's life RR_swordaxeclubs tick FCEI_killing of hsd memb RR_alarm syst RF

2 FCEI_female memb of hsd raped -.580 RR_juju FCEI_self raped FCEI_kidnappg FCEI_self tortured
46
Year
2013
2
20
2
48
Year
2013

[Wikipedia Free Encyclopedia .Owerri (Accessed (2013)] , *Wikipedia Free Encyclopedia .Owerri (Accessed* 14th July 2013.

[Okewole ()] *An Approach to Integration between the Tradition and Contemporary Areas of Ogbomoso*, I A Okewole . 1977. Zaria, Nigeria. Department of Urban and Regional Planning Ahmadu Bello University (Unpublished Master thesis)

[Oredein ()] *An Assessment of Residents Response to Crime in Abuja., FCT. (Unpublished B.Tech Dissertation), Department of Urban and Regional Planning*, Simisola Oredein , A . 2006. Ladoke Akintola University of Technology. Ogbomoso

[Agbola ()] *Architecture of Fear, Urban Design and Construction Response to Urban Violence in*, Tunde Agbola . 1997. Lagos, Nigeria. Ibadan. IFRA.

[Aguda (ed.) ()] *Area Ecological Analysis of Crime. A Case Study of a Nigerian City*, A S Aguda . Albert, I.O, Adisa, J Agbola T. and Herault, G. (ed.) 1994. Urban.

[Walklate (ed.) ()] *Community and Crime Prevention*, S Walklate . McLaughlin, E. and Mumic, J. (ed.) 1996. London. Sage Publication.

[Jeffery ()] *Crime Prevention through Environmental Design Beverly Hills*, C R Jeffery . 1977. Sage publications Inc.

[English Dictionary et al. (ed.) ()] *Defensible Space. Crime Prevention through Urban Design*, New English Dictionary , Thesaurus , Grosset Geddes , O Newman . Stein, Jay M, (ed.) 1995. Mc Graw-Hill, Inc. p. . ((ed) Classic Readings in Urban Planning USA)

[Tech] *Dissertation, Department of Urban and Regional Planning*, M Tech . Ladoke Akintola University of Technology

[Federal Republic of Nigeria 2006 Population and Housing Census National Population Commission ()] 'Federal Republic of Nigeria 2006 Population and Housing Census'. *National Population Commission* 2010. Federal Government Press.

[Onibokun ()] 'Nigerian Cities'. A G Onibokun . *Their Rehabilitation and Residential Redevelopment Journal of Royal Town Planning Institute* 1972. 58 (2) p. .

[Yongocho ()] *Public Policy and Urban Crime*, Hyo Yongocho . 1974. Ballinger Publishing Company USA.

[Afon ()] 'Resident Diversity Factor in the Perception of and Response to Fear of Crime in Nigeria'. A Afon . *Paper presented at the International Conference on Security, Segregation and Social Networks in West Africa Cities 19'th -20th centuries, held at the International Centre for African Studies*, 2001. IFRA) University of Ibadan

[Adeboyejo and Onyeonoru ()] 'Residential Density and Adolescent Reproductive Health Problems in Ibadan'. A T Adeboyejo , I P Onyeonoru . *Nigeria. African Population Studies* 2003. 18 (1) .

[Shaftoe ()] 'Social Crime Preventions to Reduce the Motivation to Offend'. Henry Shaftoe . *Synopsis of Presentation at Tallin City Council 15th April*, 2002.

[Adeboyejo and Abodunrin ()] 'Spatio -Temporal Variations in Urban Crime in Ogbomoso'. A T Adeboyejo , F O Abodunrin . *Nigeria. Journal of Environmental Sciences* 2007. 6 (1) p. .

[Abodunrin ()] *Spatio-Temporal Variation and Residents Response to Crime in Ogbomoso*, F O Abodunrin . 2004.

[Tunde ()] *Urban Violence, Urban Security and the Challenges of Governance. The Evolving Disturbing Scenario from Abuja Nigeria*, Agbola Tunde . 2002. p. . (Paper Presented at the 33" Annual Conference of Nigeria Institute of Town Planners held at Ilorin)

[Mabogunje ()] *Urbanization in Nigeria*, A Mabogunje . 1968. London University Press.

[Tabachnick and Fidell ()] *Using Multivariate Statistics, Fourth Edition, Ally and Bacon*, B G Tabachnick , S L Fidell . 2001. 1.