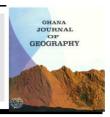
## Ghana Journal of Geography

journalhomepage: https://www.ajol.info/index.php/gig/https://journals.ug.edu.gh/index.php/gig/



# Insecurity and the Coping Strategies of Residents in Benin Metropolis, Nigeria

Jolly Osaretin Egharevba<sup>1\*</sup> & Festus Amasikomwan Atewe<sup>1</sup>

<sup>1</sup>Department of Geography and Regional Planning, University of Benin, Benin City, Nigeria

article info

Article history: Received 30th March 2024 Accepted 28th July 2024

Keywords: Crime, Neighbourhoods, Policing, Population, Urban, Vigilante.

#### abstract

This paper examines urban insecurity and the coping strategies of residents in the Benin metropolis. The main objective of the research is to determine insecurity challenges and coping strategies of residents in the Benin metropolitan area. The research adopted the survey method. A total of 384 copies of the questionnaire were administered to the residents in the study area. However, only 367 valid copies of the questionnaire were returned. The results of the analysis revealed that armed robbery was the most common crime incident in the study area with Kendall's Coefficient of Concordance value of 0.84 and a mean ranking of 1.16. The results further showed that Ikpoba-Okha Local Government Area (LGA) had the highest proportion of armed robbery cases (33.66%), car snatching (34.69%), and rape (38.6%) with a total crime incident of 106.95% (n=138) while Egor LGA had the highest proportion of burglary cases (37.97%). The study further revealed that the perception of respondents to crime incidents was high with a mean value of 4.04. Majority of the respondents (with Kendall's Coefficient Concordance value of 0.66 (66%) and a mean ranking of 1.56) were of the view that the government should empower local vigilantes to combat crime in the area. The paper concluded with the recommendation that police patrol of the various neighbourhoods in the study area should be intensified and there should be an efficient channel of information gathering with utmost confidentiality between the informants and the respective agencies that are responsible for combating crime.

© 2024 GJG Ltd. All rights reserved.

### Introduction

Urbanisation is not a restricted phenomenon to designated areas of the world but it is a global phenomenon (United Nations, 2007). In developed nations, urbanisation is the outcome of fast growth, modernisation, and industrialisation, rather than an agglomeration of people, which is generally the result of rural-urban drift. Nigeria is experiencing rapid urbanisation like most other developing countries, as a result of the "push" of rural regions and the "pull" of metropolitan centers (Aluko, 2010; Adedeji, 2023; Essien, 2023). Due to urbanisation, there is a continuous increase in the number of people living in cities or urban centres in Nigeria (Bloch et al., 2015). This occurrence results from the continuous mass movement of people from rural settlements to cities or urban areas, and also the natural increase in birth rate and a decline in the death rate (Bodo, 2019). Reports from various researchers have shown a steady increase in the world's urban population, particularly in Africa (Obeng-Odoom, 2013; Oteng-Ababio & Melara, 2014; Agyei-Mensah et al., 2015; Owusu, 2016). In 1960, the world's urban population was 34% of the total and only 43% in 1990; nevertheless, in 2014, the urban population accounted for 54% of the total and is still growing. The proportion of people living in cities is predicted to reach 66% by 2050. (UNDESA, 2014; UN-Habitat, 2016;

Insecurity is defined as a condition in which there is no peace and there is a threat to people and property through criminal activities. Thus, insecurity refers to a scenario in which there is a sense of inadequacy in the protection of people's lives and property (Azih & Nwagwu, 2015). Crime is an illegal act for which the perpetrator can be punished by the government (Ibama et al., 2015). Crime is a multifaceted social vice/problem that ranges from assault to murder. However, this paper will only focus on crimes such as armed robbery, burglary, car snatching/theft, and rape.

\* Corresponding author.
E-mail addresses: jolly.egharevba@uniben.edu (J. Egharevba).

Global trends indicate that there is a rise in crime from the year 1980 to 2000, crimes increased from 2300 to 3000 for every 100,000 people (United Nations Human Settlement Programme UN-HABITAT, 2007). The rapid growth of urbanisation in sub-Sahara Africa has been met with a substantial failure of cities to sustain their populations who face serious hardship in terms of social service delivery and social inequity (UN-HABITAT, 2009; Kunkeler & Peters, 2011). City dwellers are at the mercy of social imbalances and inequality, which cause high criminal activities (Chirisa et al., 2016).

According to Bodo (2019) and Babatunde and Awopetu (2020), population growth plays a major role in the increase in the unemployment rate in Nigeria. According to Adegbola and Oluwole, (2019), the rate at which social and public infrastructure is decaying is alarming. Hence, the consequences of such a development include a lack of work possibilities, food, housing, transportation, water, social services, waste disposal services, and environmental protection. Szreter (1997), UNHABITAT (2007), and Engelke (2012) opined that crimes are mostly perpetuated by the unemployed in their struggle to survive the competitiveness of the urban environment. Moser and Rodgers (2005) summarised the leading causes of insecurity and crime in the urban space to be;

- Changes in livelihood, labour markets, and natural resources:
   Changes in global and national production systems linked to labour markets, growing inequality in access to natural resources (especially land).
- Shifting social structures and relations: The influence of migration on household structure and levels of violence, as well as the impact of fast urbanisation and globalisation on inter- and intracommunity violence and conflict.
- Changing political institutions: The weakening of the state and the rise of forms of social governance. Also, the transformation of state governance.
- iv. Shifting geographic organization: As a result of globalization, new spatial forms arise, as do new forms of socio-spatial governance. In Nigeria, the degree of insecurity is so alarming has and has touched every category of individuals in every nook and cranny of the country (Tai &

http://dx.doi.org/10.4314/gjg.v16i3.11 © 2024 GJG. All rights reserved.

Esetang, 2024). It has infiltrated every element of Nigeria's national life. Insecurity impedes socio-economic progress in a variety of ways. Threats to physical security, a lack of secure living conditions, risks that hinder people's attainment of g sustainable livelihoods, and the impact on health and education services are some of the challenges posed by insecurity in Nigeria. Urban insecurity is primarily triggered by rising criminal activity and violence, which is exacerbated by a variety of socioeconomic and political issues. The outcome is the formation of dangerous human settlements, as well as worry and terror among city dwellers (Chirisa, et al., 2016).

In Benin Metropolis, Nigeria, insecurity poses a significant challenge to the well-being and daily lives of residents. Crime, as a primary factor of insecurity, has escalated, impacting the socio-economic stability and safety of the community. This pervasive threat has compelled residents to adopt various coping strategies to mitigate the effects of crime. This has been backed by studies that have shown that there has been a steady increase in urban crime incidents as urbanisation processes, economic recessions, terrorism, and urban insecurity have become prevalent in Nigeria (Ahmed, 2010; Oyeleye, 2013; Ukwayi et al., 2017). Despite numerous efforts by law enforcement agencies, crimes such as armed robbery, kidnapping, and burglary remain alarmingly high. This research seeks to investigate the specific types of crimes prevalent in Benin Metropolis, the coping mechanisms employed by residents, and the effectiveness of these strategies. Understanding the interrelatedness between crime and coping strategies is vital for developing targeted interventions to enhance security and improve the quality of life for the inhabitants of Benin Metropolis. Thus, this is vital for understanding crime pattern, informing policy, enhancing community safety, addressing socio-economic impacts, empowering residents, and contributing to academic discourse on urban security and criminology.

The provision of security is a vital social service, entrusted to the government in partnership with its citizens. The primary aim of this study is to examine community-level crime incidents and the coping mechanisms that residents employ to address their vulnerability to crime. To achieve this objective, the research seeks to answer the following research questions; which is the common crime in the study area? At what time of the day is the usual occurrence of these crimes in the study area? How is the spatial spread of crime incidents in the study area? Which Local Government Area (LGA) has the highest incidence of arm robbery and burglary in the metropolis? What are the coping strategies employed by the residents in combating these problems? How effective are these coping strategies?

 $H_{\text{o}}\text{:}$  There is no significant association in the case of crimes in the various LGA in the study area.

 $H_{\text{o}}$ : There is no unanimity among respondents about which crime is more prevalent and makes them feel unsafe.

 $H_{\text{o}}$ : There is no significant difference in the mean of crime occurrence and the time of the day.

 $H_{\text{o}}$ : There is no consensus on the proposed method that the government may use to make people feel comfortable in the research area.

#### **Theoretical Framework**

Social Disorganisation Theory (SDT), originated in the early 20th century through the work of sociologists at the University of Chicago, particularly Clifford Shaw and Henry McKay. Their seminal work, "Juvenile Delinquency and Urban Areas" of (1942), laid the foundation for the understanding of how community structures influence crime rates. Shaw and McKay's research highlighted the correlation between crime and various social factors within urban neighbourhoods, establishing a framework for analysing how environmental and social dynamics contribute to criminal behaviour. One of the most well-known truths about a crime is that it does not spread evenly throughout a city, since it tends to concentrate in some areas but not in others. As a result, residents of a city may commonly discern between "good" and "bad" neighbourhoods. To explain crime, SDT uses the non-random distribution of crime as a starting point. It is one of only a few social structural theories of crime that analyses why crime rates vary across areas such as neighbourhoods. The following are two critical difficulties for disorganisation theorists:

- 1. Why is crime more prevalent in certain communities than in others?
- 2. Is there something about the characteristics of these communities (other than the individuals who reside there) that promotes crime?

The theory posits that crime is primarily a result of the breakdown of social institutions, such as family, school, and community networks, within a neighbourhood. Key principles of SDT include ecological factors, social cohesion, and economic deprivation. Ecological factors suggest that crime rates are influenced by the physical and social environment. Social cohesion emphasises that the lack of community cohesion and collective efficacy leads

to higher crime rates. Economic deprivation points to poverty and economic instability as contributors to social disorganisation and crime.

SDT is applied to understand crime and insecurity in communities by examining how structural and socioeconomic factors contribute to insecurity and criminal behaviour. For example, in Nigeria, studies have shown that neighbourhoods with high levels of poverty, unemployment, and weak social institutions experience higher crime rates (Akinlabi, 2017; Umoru, 2019; Ezeajughu, 2021). This theory helps policymakers and law enforcement agencies to design interventions that focus on strengthening community bonds, improving economic conditions, and enhancing social services to reduce crime and improve security.

SDT has long played an essential role in criminological thought, and it continues to do so well into the twenty-first century. Knowing the rate of a certain crime will also help in understanding the diverse ways in which individuals in different locations cope with their insecurity challenges.

Crime Pattern Theory (CPT) addresses spatial aspect of insecurity and crime by explaining the geographical patterns of crime. CPT emerged in the late 20th century through the pioneering work of Paul and Patricia Brantingham. Their influential book, "Environmental Criminology" (1981) in Miró-Llinares and Moneva (2019), laid the groundwork for understanding how spatial and temporal factors shape criminal behaviour. The Brantinghams proposed that crimes are not random events but follow discernible patterns which are influenced by the routines and interactions of offenders and potential victims within urban environments.

Central CPT are several key principles. Nodes, such as homes, workplaces, and public gathering spots, act as focal points where criminal activity is more likely to occur. Paths, which are the routes people take between nodes, including streets and transit routes, also influence crime patterns by creating opportunities for criminal encounters. Additionally, edges—transition zones between different land users or neighbourhoods—often exhibit higher crime rates due to factors like reduced surveillance and weaker social control.

CPT is applied to analyse and address crime in communities by focusing on the spatial and temporal dynamics of criminal incidents. For example, research in Nigerian cities has highlighted how poorly lit areas and congested pedestrian routes can become hotspots for crimes like robbery and assault (Marenin & Reisig, 1995; Ekpo, 2019; Mohammed, & Musa, 2023). This theory informs urban planning and policing strategies aimed at enhancing environmental design, increasing surveillance, and strategically deploying resources to prevent and respond to criminal activities effectively.

Social Disorganisation Theory and Crime Pattern Theory can be instrumental in addressing insecurity and developing coping strategies in Benin Metropolis. Social Disorganisation Theory can help identify areas with weakened social structures and high crime rates, allowing policymakers to implement community-strengthening initiatives and improve social cohesion. Crime pattern theory complements this by analysing the spatial and temporal patterns of criminal activity in the city. This enables law enforcement and urban planners to optimize resource allocation, enhance surveillance in highrisk areas, and design urban spaces that reduce opportunities for crime. Together, these theories provide a comprehensive approach to understanding and mitigating crime, enhancing the effectiveness of strategies to protect residents and improve community resilience in Benin Metropolis.

#### **Conceptualising Neighbourhood Security**

A neighbourhood evokes a sense of place and community in the midst of a varied range of people and activities. A neighbourhood is a socio-spatial unit of a city comprised of individual dwelling units and households. A neighbourhood, is thus, a collection of features that include clusters of residences and other land uses (Cohen et al., 1979). The neighbourhood provides the framework that defines the urban region physically, economically, and socially (Cozens et al., 2005). In its ideal form, a neighbourhood is a walkable area with clear boundaries and an identifiable core of local services and civic organizations (Agheyisi & Aghedo, 2021). The terms neighbourhood and community are tantamount within the Nigerian context (Agheyisi & Aghedo, 2021) and are used interchangeably in this research. The safety of people and property is primarily dependent on neighbourhoods (Felson & Cohen, 1980). Consequently, individuals, companies or groups, and the government all make appropriate investments in neighbourhood security. According to Takagi et al. (2016), community participation (linked by shared values and social interactions or friendship ties) has a positive impact on crime prevention and control. The over-reliance on traditional (professional) police approaches neglected community members' contributions to crime prevention and problem-solving. It forced policing to be reactive rather than proactive in terms of crime prevention and issue resolution.

Neighbourhood insecurity, as defined in this article, is the presence of any actual or perceived threat to the collective safety of persons or inhabitants in a given community. The main goal of community security is to control and prevent crime. This is done through proactive and reactive measures.

Proactive control centres on preventing the crime from occurring and reactive control centres on responding to crime that has occurred both on the crime scene and off it.

#### Community Crime and Insecurity in Nigeria

Community crime and insecurity are pressing issues in Nigeria, severely affecting the quality of life and socio-economic development. Previous studies have explored various aspects of neighbourhood crimes, shedding light on the patterns and consequences of criminal activities in different regions of Nigeria.

Armed robbery is a developing phenomenon that crosses cultures and socioeconomic classes, destroying many lives and property (victims). The gravity of armed robbery as a societal problem in Nigeria is determined not only by its total yearly rate, but also by the actual violence and fatalities involved (Igbo, 2001). This observation of Igbo (2001) can be backed by the figures from the Nigeria Police Headquarters in Table 1. According to UN-HABITAT 2008, for 100,000 people, 2,297 are rubbed in Cape town. Herald 2010 observed that there has been an increase in the crime of rubbery between the years 2008 and 2009. Owagbemi (2017) investigated armed robbery and security awareness of residents in Akoko. The majority (77.3%) of respondents believed that the number of armed-robbery activities in Akokoland had increased. Eighty-two percent (82.7%) of respondents additionally noted that the technique and timing of these armed-robbery operations were unusual. The majority (84.2%) of respondents also felt that the armed robbers had been conducting successful operations without any difficulty. Respondents were of the view that they used both conventional and contemporary means to protect their lives and assets. What was lacking in this work is that spatial occurrences of armed robbery were not investigated by the

Agbabiaka et al. (2021) investigated the features of crime and its causes in Mushin, Lagos, Nigeria and found that there was no statistically significant variation in crime incidence by category across the towns studied. Residents, on the other hand, reported a high rate in armed robbery cases, assault, and pocket-picking, particularly among low-income earners.

Burglaries and housebreaking are also widespread in most low-income residential neighbourhoods, owing to their vulnerability because of a lack of financial wherewithal to protect themselves, such as the provision of perimeter walls and security cameras (Goldsmith, 2010; Herald, 2010). According to UN-HABITAT 2008, there are 893 incidents of rubbery per 100,000 people in Cape town. Popoola et al. (2018) examined household neighbourhood responses to burglary in Ibadan, findings from the research showed that analysis of variance validated the research hypothesis that burglary offenses varied considerably among residential neighbourhoods (F=3.012) and burglaries were frequently committed in residences reached by walkways. Additionally, females reported seeing more burglaries than males. Gates, professional security firms, and local vigilante groups are among the neighbourhood reactions to burglary. Individual residences were protected by burglary-proof windows and doors, a fence made from shattered bottles, and wire. According to Agbabiaka et al. (2021), a pattern was noticed in property crimes such as burglary, and shop breaking in low- and middle-income

According to Todd (2007), one of the most common complaints made to police in residential areas is the theft of parked cars. Cars in residential areas near lower-income socioeconomic neighbourhoods (sometimes with greater crime rates) are more vulnerable. Thieves in high-crime zones just need to travel a few blocks to hunt for items or autos to steal. They have the advantage of being familiar with the location. Vehicle thefts are shown to be more likely at night in residential neighbourhoods. The prevalence of vehicle thefts at this

time of the day is attributable to the fact that it is the time of day that majority of autos are present in these areas, as well as the fact that darkness provides cover for thieves. According to UN-HABITAT 2008, there are 355 automobile snatching incidences per 100,000 people in Cape Town. Agbabiaka et al. (2021) also discovered that car theft is widespread in high-income communities.

Although geographers are interested in crime mapping, there has been little research on the geography of rape crime. Darshan (2015) discovered a variance in the rate of rape perpetrated in India. Idoko et al. (2020) investigated the pattern and trend of rape cases in Nigeria. The data revealed that the yearly prevalence differed for the various age groups tested, with the highest frequency seen for 13 years and older (175,200,255) during the three years analysed (2014, 2015, and 2016). During the course of the trial, the reported instances improved as well, with rates of 0.47, 0.96, and 0.5, respectively. According to Agbabiaka et al. (2021), moral crimes such as gambling, prostitution, and public peace disturbances are common in lowand high-income neighbourhoods, whereas gaming, prostitution, and bribery are common in middle-income areas.

Like in many other locations, citizens in Nigeria have had to rely on self-help or coping techniques to address the myriad issues of insecurity (Agbola, 1997). According to Ibama et al. (2015), 55% of the respondents relied more on police patrol for their security and 29% relied on neighbourhood watch. While policing and hiring private security guards are frequently the first options, several authors have identified high fencing, massive gates, security dogs, the purchase of guns, security fence wire, closed circuit television systems, steel security grills, and the use of strong locks as some of the other measures that citizens use in response to the treatment of criminal activities (Agbola, 1997; Fabiyi, 2004; Badiora & Afon, 2013; Radetskiy e al., 2015; Badiora et al., 2015; Farodoy et al., 2021).

Despite these contributions, significant gaps remain. Many studies are concentrated on specific regions, such as Lagos, Akoko, and Ibadan to the neglect of areas like the Benin Metropolis. Additionally, there is a lack of comprehensive studies that examine multiple types of crimes and their interconnected effects on community security. While some research touches on adaptive measures, there is limited in-depth analysis of the effectiveness and evolution of these coping strategies over time.

#### Study Area

Benin Metropolis is a pre-colonial Nigerian city that was a major stop for Europeans during their 15th-century exploration of the African continent. The city is located roughly between the Equator's Latitude 6°19'00"N and  $6^{\circ}21'00"N$  and the Greenwich Meridian's Latitude  $5^{\circ}34'00"E$  and  $5^{\circ}44'00"E$ (see Figure 1), with an average height of 77.8m above sea level (Floyd et al., 2016; Egharevba & Edohen, 2023). The city is a product of an amalgam of three major contiguous local government areas (Egor, Ikpoba-Okha, and Oredo) as well as parts of two other local government districts (Uhunmwode and Ovia North-East). Benin City is an old city in Nigeria's southern region and because of its relevance in the Nigerian context, the city has not only grown enormously in recent years, but it has also changed in character. According to Ogunbodede and Balogun (2013), Benin City's growth has been fast, with an exponential extension of the city's size expected shortly. Benin City's spatial expansion has been mostly driven by residential land use development. The city's geographic growth rate is 5.5 km<sup>2</sup>. According to another analysis, the city's yearly growth rate is 1.5% (Onokerhoraye, 1995; Ogunbodede & Balogun, 2013). The two main factors contributing to Benin City's exceptional expansion are immigration and the city's centrality. See

Table1: Armed robbery fatalities in Nigeria 1994-2006

Year	Robbers killed by police	Police killed by robbers	Civilians killed by robbers	Total
1994	125	46	54	225
1995	441	114	269	824
1996	420	721	387	1528
1997	394	88	217	699
1998	331	40	185	556
1999	411	101	317	829
2000	595	147	196	938
2001	454	86	279	819
2002	317	87	371	775
2003	545	114	335	994
2004	562	111	472	1145
2005	252	129	273	654
2006	329	119	233	681

Source: Nigeria Police Headquarters Abuja.

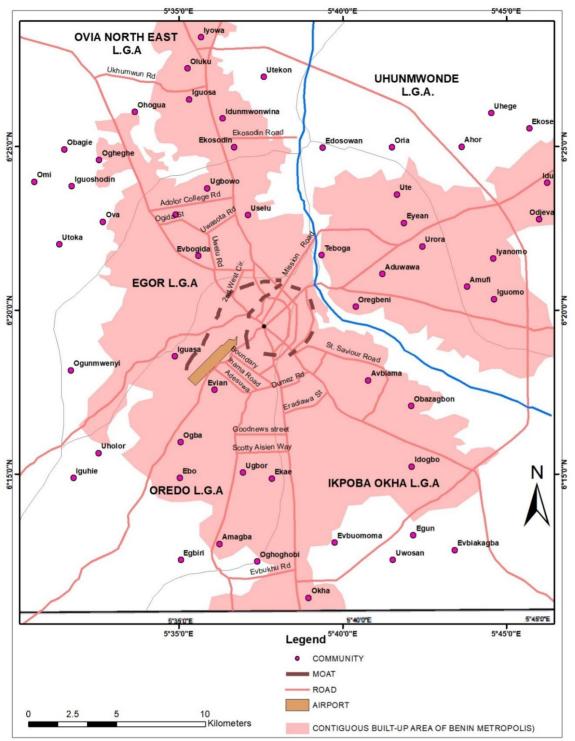


Figure 1: Contiguous Built-up Area of Benin Metropolis Source: USGS, 2023 and edited by Author, 2023

The fear of crime and insecurity has led to an increased number of fenced and gated private compounds, which has led to social division and eroded next-door neighbourliness. The city's security is mostly the responsibility of the residents to exercise neighbourhood vigilantism (Agheyisi & Aghedo, 2021). Vigilantes have been defined as a group of private individuals who work to prevent crime in their community. Membership is typically made up of neighbourhood residents who give their time or paid individuals who help guard the neighbourhood. The group's operation is legitimised by communal agreement to combat crime (Agheyisi & Aghedo, 2021). The necessity for neighbourhood vigilantism stems from the rise in crime, and general perception of inability of the Nigerian police to provide efficient policing.

#### Materials and Methods

The sample size was determined using the krejcie and Morgan formulation;

$$\frac{X^2NP(1-P)}{S=d^2(N-1)+X^2P(1-P)}$$
.....Equation 1

Where;

S stands for sample size.

N denotes the Z value (for example, 1.96 for a 95% confidence level).

N denotes the population size.

 ${m P}$  is the population proportion (expressed as a decimal) (assumed to be 0.5 (50%) for the maximum sample size).

d is the degree of accuracy (5%), expressed as a proportion (0.05) as it is the margin of error.

Applying this formulation using the population of size (2,069,695) which was projected from the population size (1,363,975) of the study area, the sample size is given as 387.

**Sampling Technique:** Stratified random sampling is employed. The study area has been divided into clusters using the geographical boundaries of each local government area. Based on local knowledge and personal discretion, copies of the questionnaire were assigned to the various LGA (strata) in the study area as shown in Table 2.

The questionnaire was distributed to the household heads. The houses to be selected were systematically done by picking the first house on the selected street, the second and third houses will be skipped and the fourth house was selected. This was repeated until the houses on the street were exhausted. The second street was skipped and the third street was selected and the procedure for selecting a house was repeated.

#### Results and Discussion

#### Occurrences of Crime in the Study Area

Irrespective of the type of crime, there is a locational attribute attached (Curtis-Ham et al., 2023). This means that crimes occur in a place and these places when observed, facilitate a determination of the patterns to these crimes. The frequency of occurrence of each crime in the various LGA in the study area that took place in the place of residence (house) from 2020 to 2021 is depicted in Table 2.

From Table 3, a cumulative of 419 crimes (armed robbery, burglary, car theft, and rape) was reported to have occurred in the year (2020-2021) under study by the respondents in the study area. Out of this, Ikpoba-Okha has the highest cumulative crime and it accounted for 33% (n=138). Egor LGA ranked second and it accounted for 26.5% (n=111) of total crimes in residence in the period under focus. While Oredo, Uhunmwode, and Ovia North-East accounted for 40.6% (n=170) of the total crime that occurred in the year.

The high rate of crime in the Ikpoba-Okka and Oredo LGA can be a resultant effect of it being dominated by low- and medium-income areas (Eyikorogha, 2021). It is an area where immigrants from the surrounding rural areas tend to seek accommodation and it is characterised by unemployed youths. Unemployment is a major contributor to the high crime rate as individuals who have needs are unable to meet them (Herald, 2010). The low crime rate in Uhunmwode and Ovia North-East can be attributed to the fact that it was a section of the LGA that copies of the questionnaire were distributed. The

copies of questionnaire were administered in the urban areas. Another factor that contributed to the low crime in Oredo LGA even though it has the highest population when compared to the other LGA is that the area is characterised by government-owned structures and it has the highest clusters of security structures. The presence of security personnel may have accounted for the total figure of crimes in the area.

# Influence of Location on the Types and Prevalence of Crime in Benin Metropolis

Armed Robbery

It has been established that crimes occur in space and there is a spatial variation in their frequency. To establish this variation in the type of crime and its frequency in a location, a hypothesis was framed "there is a significant association in the type and frequency of crime in a house amongst the LGAs". See Tables 4 and 5 for the crosstabulation between cases of crime occurrence and LGAs, and chi-square respectively.

From the Table 4, it is observed that there is spatial variation in the occurrences of armed robbery in the study area. Ikpoba-Okha LGA had the highest proportion (33.66%) of claimed cases of armed robbery incidents when compared with other LGAs. This was followed by Oredo LGA which had a proportion of 24.39% cases of armed robbery cases. Egor LGA presented a very peculiar situation. Although it was the third in the list of LGA with high robbery incidents, it was the only location that had a residence that has been reported proportion 2.08% (n=1) of robbery cases. This peculiar occurrence is attributed to the presence of a wholesale store attached to the residential building.

Chi-square statistics were carried out to determine if there is a significant association between location and the occurrences of the type of crime observed since it has been shown in the literature that there are differences in its occurrence over space; that is, if there is a substantial association between location and the occurrences of armed robbery.

The chi-square statistics in Table 4 are 52.987, with a P-value of (0.001). Because the P-value is smaller than the alpha value (0.05), the null hypothesis is rejected and the alternative hypothesis, stating that there is a relationship between location and the occurrences of armed robbery in the research region, is accepted. This suggests that there is a link between location and the frequency with which armed robbery is perpetrated as a crime in the research region.

Table 2: Procedure for the Distribution of Questionnaire

S/N	Local Government Area (Strata)	Copies of the Questionnaire Administered	Copies of the Questionnaire Returned
1	Oredo	104	89
2	Egor	100	98
3	Ikpoba-Okha	90	89
4	Ovia North-East	40	38
5	Uhunmwode	53	53
Total		387	367

Source: Authors' Fieldwork

Table 3: Cases of Crime Occurrence per LGA Between 2020-2021

LGA	Armed l	l Robbery Burglary Ca		Car Sn	Car Snatching		Rape		Total	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
EGOR	48	50	44	54	8	90	11	87	111	281
IKPOBA-OKHA	69	20	33	56	17	72	19	70	138	218
OREDO	50	39	20	69	13	76	12	77	95	261
OVIA NORTH-EAST	14	24	4	34	5	33	1	37	24	128
UHUNMWODE	24	29	16	37	6	47	5	48	51	161
Total	205	162	117	250	49	318	48	319	419	1049

Source: Authors' Fieldwork

Table 4: Crosstabulation Between Cases of Armed Robbery Occurrence and LGAs

Name of LGA	Numb	Number of Cases of Armed Robbery Occurrence in House							Test Statistics	
	1	2	3	4	5	6	8		$\mathbf{X}^2$	P-Value
Egor	16	23	5	1	1	1	1	48		0.001
kpoba-okha	25	24	4	14	2	0	0	69		
Oredo	20	23	1	4	1	1	0	50	52.007	
Ovia north-east	0	4	3	7	0	0	0	14	52.987	
Uhunmwode	4	18	1	1	0	0	0	24		
Total	65	92	14	27	4	2	1	205		

Source: Authors' Fieldwork

#### Burglary

The occurrences of home burglary as a crime were computed in Table 5 to determine if there is a variation in its occurrences in the various LGA in the study area.

From Table 5, it is evident that there is a spatial variation in the occurrences of burglary in the study area. Egor LGA had the highest proportion (37.97%) of burglary incidents when compared with other LGAs. It was the only in LGA that there were reports of houses been burgled five, six, and ten times with a respective frequency of 3, 1, 1. This was followed by Ikpoba-Okha LGA which had a total of fifty cases of armed robbery cases. Oredo LGA had cumulative proportion of cases of home burglary of 16.38% (n=19), Uhunmwode LGA had a proportion of 13.79 cases (n=16) and Ovia North-East LGA had a proportion of 3.45% (n=4) cases.

The Chi-square test table in Table 5 was used to determine the statistical significance of the association between location and the frequency of occurrences of burglary.

From Table 5, Pearson's chi-square statistics is 67.026 and a P-value (0.000). Since the P-value is lesser than the alpha value (0.05), the alternate hypothesis which states that there is an association between location and the occurrences of burglary in the study area is accepted. This means that there is an association between location and the frequency in which burglary as a crime is committed in the study area.

#### Car Snatching (Theft)

Car snatching crime incidents in the study area are shown in Table 6. This is to help to show the difference in the rate of car snatching in the study area. The data were collected in a house but in the neighbourhood of respondents.

From Table 6, Ikpoba-Okha LGA had the highest proportion (34.69%) of cars being snatched in the neighbourhood. This was followed by Oredo and Egor LGAs. The reported proportion of incidents of car snatching (61.22%) in Ikpoba-Okha and Oredo LGAs exceeds the occurrence of car snatching (38.78%) in Egor, Ovia North-East, and Uhunmwode LGAs.

From Table 6, Pearson's chi-square statistics is 31.703 and a P-value (0.000). Since the P-value is lesser than the alpha value (0.05), the alternate hypothesis which states that there is an association between the location and the occurrences of the type of car snatching in the study area is accepted. This means that there is an association between location and the frequency in which car theft as a crime occurs in the study area.

#### Rape

From Table 7, Ikpoba-Okha LGA has been shown to have the highest cases of reported as 38.6% of the total cases of rape was seen to have occurred in that cluster and 100% of those cases were reported to have occurred once. This was followed by Oredo and Egor LGAs. The proportion of the respondents that reported the occurrence of incidents of rape were 25% and 22.92% respectively. The proportion of the respondents that claimed that the rape occurred in Ovia North-East and Uhunmwode LGAs were 2.08% and 10.42%. In Uhunmwode LGA, 60% of the total respondents claimed that rape cases have occurred once in their homes.

From Table 7, Pearson's chi-square statistics is 21.472 and a P-value (0.044). Since the P-value is lesser than the alpha value (0.05), the alternate hypothesis which states that there is an association between location and the occurrences of the type of rape in the study area is accepted. This means that there is a correlation between location and the frequency of occurrence of rape crime in the study area. This finding is in line with what Darshan (2015) observed.

The need to have a visual feel of the variation in the occurrence of various crimes in the various LGA to help show areas in which the type of crime is high necessitated the need to show the frequencies of this crime in Figure 2.

The figure shows the chart of the various reported crimes under observation in the study area by the respondents. From the chart, readers will observe that armed robbery is the dominant crime followed by burglary. The rape cases were high in Ikpoba-Okha and followed by Egor in LGA.

The findings in this section were backed by the SDT framework as it has shown that the occurrence of crime does not happen evenly across locations and that some dispositions such as environmental, social and economic factors play a crucial role in the occurrences of crimes.

# Influence of Time of the Day on the Types and Prevalence of Crime in Benin Metropolis

Just as location influences the frequency of different crimes, so does the time of the day influence different crimes. ANOVA was employed to interrogate if there was a significant difference in the time of the day crime incidents in the study area was committed. See Table 8 for the ANOVA table that shows the difference in mean of the various times of the day these crimes were perpetrated in the study area.

Table 5: Crosstabulation Between Cases of Burglary Occurrence and LGAs

Name of LGA	Numbe	Number of Cases of Burglary Occurrence in House						Total	Test Sta	Test Statistics	
	1	2	3	4	5	6	10		$\mathbf{X}^2$	P-Value	
Egor	25	8	4	2	3	1	1	44			
Ikpoba-okha	6	10	2	15	0	0	0	33		0.000	
Oredo	9	6	2	2	0	0	0	19	(7.02(		
Ovia north-east	2	2	0	0	0	0	0	4	67.026		
Uhunmwode	1	15	0	0	0	0	0	16			
Total	43	41	8	19	3	1	1	116			

Source: Authors' Fieldwork

Table 6: Crosstabulation Between Cases of Car Snatching (Theft) Occurrence and LGAs

Name of LGA	Number of C	Number of Cases of Car Snatching Occurrence in Neighbourhoods To				ics	
	1	2	3		$\mathbf{X}^2$	P-Value	
Egor	4	1	3	8			
Ikpoba-okha	10	6	1	17			
Oredo	0	13	0	13	21 702	0.000	
Ovia north-east	5	0	0	5	31.703	0.000	
Uhunmwode	3	2	1	6			
Total	22	22	5	49			

Source: Authors' Fieldwork

Table 7: Crosstabulation Between Cases of Rape Occurrence and LGAs

LGA	Number of Case	umber of Cases of Rape Occurrence in House					Test Statistics	
	1	2	3	5		$\mathbf{X}^2$	P-Value	
Egor	9	1	1	0	11			
Ikpoba-okha	19	0	0	0	19			
Oredo	10	0	0	2	12	21 472	0.044	
Ovia north-east	1	0	0	0	1	21.472	0.044	
Uhunmwode	3	2	0	0	5			
Total	42	3	1	2	48			

Source: Authors' Fieldwork

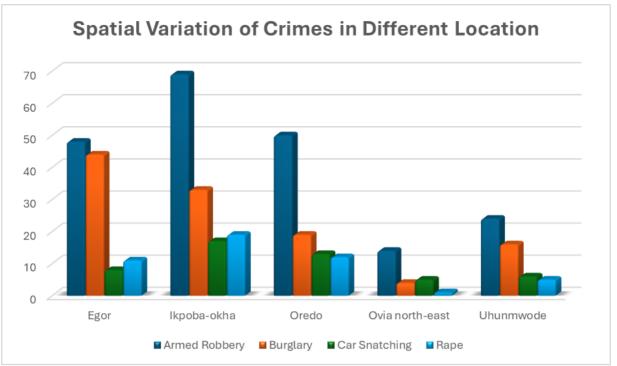


Figure 2: Spatial Variation of Crimes in Different Locations

Source: Authors' Fieldwork

Table 8: ANOVA Result for the Various Crimes Under Study

Number of Cases of	f Armed Robby in Hous	e			
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23.002	3	7.667	5.840	.001
Within Groups	263.896	201	1.313		
Total	286.898	204			
Number of Cases of	f Burglary in House				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.876	3	2.959	1.505	.217
Within Groups	220.159	112	1.966		
Total	229.034	115			
Number of Cases of	f Car Snatching in Neigl	nbourhood			
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.325	3	.442	1.005	.400
Within Groups	19.778	45	.440		
Total	21.102	48			
Number of Cases of	f Rape in House				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.122	2	8.561	20.986	.000
Within Groups	18.357	45	.408		
Total	35.479	47			

Source: Authors' Fieldwork

A one-way ANOVA was performed to compare the frequency of the type of crime committed and the different times of the day. The one-way ANOVA revealed that there was a statistically significant difference in the mean frequency of armed robbery and rape between at least two groups (F (3, 201) =[1.005], p = .001) and (F (2, 45) = [20.986], p = .000) respectively. While it was revealed that there is no statistically significant difference in the mean frequency of burglary and car snatching in at least two groups (F (3, 112) = [1.505], p = .217) and (F (3,45) = [1.005], p = .400) respectively.

The findings in this section were backed by the CPT framework as it has shown that the occurrence of crime does not happen evenly spatio-temporally and that some dispositions such as time of the day, nature of route and point of occurrence, play a crucial role in the exposure of an individual to insecurity and crime.

#### **Insecurity Challenges in the Study Area**

To ascertain if there was a level of agreement amongst the respondents on the predominance of each crime that occurs, which has led to the state of insecurity in the study area, they were asked to rank each crime according to dominance and which makes them feel insecure the most. They were

instructed to rank the options by ticking 1 for the most frequent and 4 for the least frequent. The Kendall W test was carried out to determine their level of agreement (see Table 9).

Table 9: Mean Ranking of Kendall W Test

Crime	Mean Ranking
Armed Robbery	1.16
Burglary	1.88
Rape	3.26
Car Snatching (Theft)	3.70

Source: Authors' Fieldwork

The lower the mean, the more prominent the crime in the study area. From Table 9, the crimes were arranged according to their prominence of occurrence. That puts armed robbery as the most prominent and car snatching as the least prominent.

To ensure that the level of agreement was not by chance, the Kendall statistics table is necessary to show the level of agreement and also ascertain if the agreement is significant (see Table 10).

Table 10: Kendall's W Statistics

N	361
Kendall's W <sup>a</sup>	.840
Chi-Square	909.818
Df	3
Asymp. Sig	.000

Source: Authors' Fieldwork

From Table 10, it is can be seen that the level of agreement is not by chance and it is evident in the Kendall statistics of 0.840 (84%) agreement among the respondent, which is very high and the level of agreement is not by chance and it is obvious with the P-value of 0.000 and since the P-value is lower than the alpha value (0.005), then the alternative hypothesis which states that there is a statistically significant agreement amongst the respondents on the predominant crime in the study area is accepted

#### Coping Strategy Employed by Residents in the Study Area

Different people utilise different strategies in other to help them cope with insecurity or feel safe in their place of residence. The coping and combined strategies utilised by the respondents in the study are shown in the respective figures (Fig 3- 6). In other to interpret the type of strategy for each crime in the figure, see Table 11 for the Key.

Table 11: Key

	Key					
Code	Items Represented					
1	Local Vigilante					
2	Guard Dogs					
3	Personal Weapon					
4	Police Patrol					
5	Block Wall Fencing					
6	Watchman					

Source: Authors' Fieldwork

From Figure 3, it was observed that the coping strategy utilised by the residents in the study area in combating armed robbery 156 (42.5%) of the respondents utilised local vigilantes and was followed by the use of guard dogs which was utilised by 15 (4.1%) of the respondents. In terms of the use of combined coping strategy, the use of local vigilante, guard dogs, and block fencing was the most used with a total of 76 (20.7%) respondents and was followed by the local vigilante, guard dogs, block fencing and watchman accounting for 19 (5.2%) of the respondents.

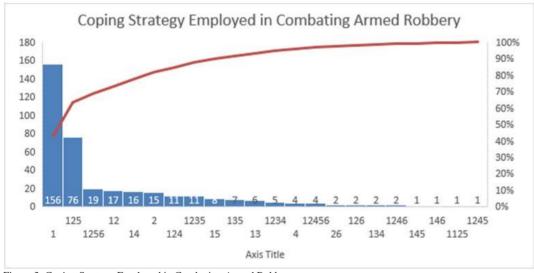


Figure 3: Coping Strategy Employed in Combating Armed Robbery

Source: Authors' Fieldwork

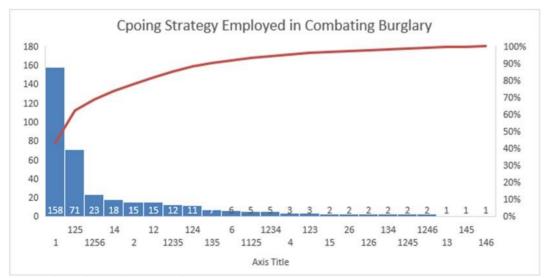


Figure 4: Coping Strategy Employed in Combating Burglary

Source: Authors' Fieldwork

From Figure 4, it was observed that the coping strategy utilised by the residents in the study area in combating burglary 158 (43.1%) of the respondents utilised local vigilante and was followed by the use of guard dogs, constituting 15 (4.1%) of the respondents. In terms of the use of combined coping strategy, the use of local vigilante, guard dogs, and block fencing was the most used with a total of 71 (19.4%) respondents and was followed by the local vigilante, guard dogs, block fencing and watchman, which accounted for 23 (6.3%) of the respondents.

From Figure 5, it was observed that the coping strategy utilised by the residents in the study area in combating burglary, 137 (37.3%) of the respondents utilised local vigilante and was followed by the use of police patrol which constituted 24 (6.5%) of the respondents. In terms of the use of combined coping strategy, the use of local vigilante, guard dogs, and block fencing was the most used with a total of 78 (21.3%) respondents and was followed by the use of local vigilante and police patrol accounting for 22 (6%) of the respondents.

From Figure 6, it was observed that on the coping strategy utilised by the residents in the study area in combating burglary, 148 (40.3%) of the respondents utilised local vigilante and was followed by the use of police

patrol which was utilised by 18 (5%) of the respondents. Regarding the use of combined coping strategy, the use of local vigilante, guard dogs, and block fencing was the most used with a total of 75 (20.4%) respondents and was followed by the use of local vigilante and police patrol accounting for 19 (5.2%) of the respondents.

From Figure 3-6, it can be seen that the most used strategy against armed robbery, burglary, car theft, and rape is the use of local vigilantes and guard dogs. The least used are personal weapons and watchmen. The local vigilante is prominent in the study because levies are been given to each house to pay which range from 500-100 naira. These levies are collated and paid to vigilantes usually by the head of the street (Odionwere). The use of guard dogs is gaining prominence in the study area and its uses range from raising the alert to preventing criminals from breaking into homes. The use of a personal weapon and watchman is the least strategy because it is capital intensive. Buying and licensing a gun and also the hiring a watchman is expensive. These are only affordable by the rich who mostly reside in the highbrow areas of the city like the Government Reserved Area (GRA) locally called Idunmwun ore ne ofe.

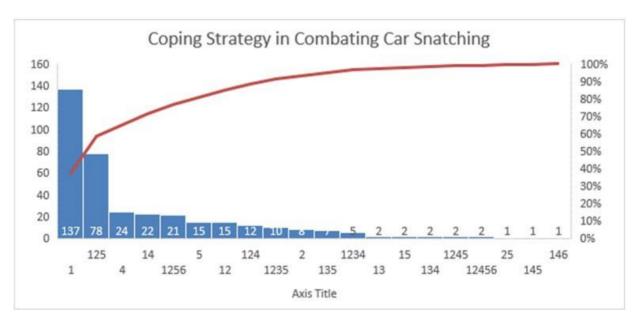


Figure 5: Coping Strategy Employed in Combating Car Snatching Source: Authors' Fieldwork

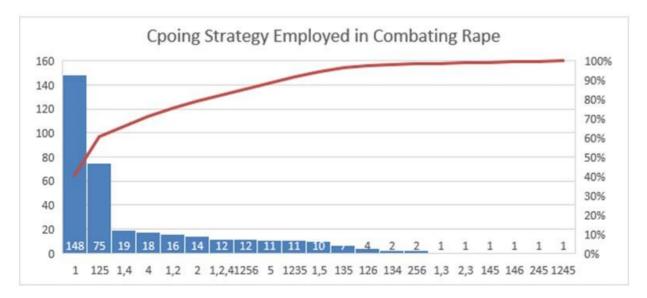


Figure 6: Coping Strategy Employed in Combating Rape Source: Authors' Fieldwork

Table 12: Statistics on the Perception of Respondents to the Level of Crime

Perception of the Level of Crime	Frequency	Percent	Χ	σ	Minimum	Maximum
Very Low	2	.5				
Low	0	0.0				
Moderate	21	5.7	4.04	462	1	-
High	304	82.8	4.04	.463		9
Very High	40	10.9				
Total	367	100.0				

Source: Authors' Fieldwork

Table 13: Mean Ranking of Need Coping Strategy

Tueste 15t Freum Trainmang of Treed Coping Statutegy	
Needed Coping Strategy	Mean Rank
Civil Defence Office in each Neighbourhood	1.93
Frequent Police Patrol	2.20
Educating the People on Crime	3.13
Introduction of Gun-law	3.73
Empowering Local Vigilante	4.93
Open Channel of Information Between the People & Government	5.07

Source: Authors' Fieldwork

Table 14: Test Statistics

N	15
Kendall's W <sup>a</sup>	.505
Chi-Square	37.895
df	5
Asymp. Sig.	.000

Source: Authors' Fieldwork

Rule of Thumb:  $0.00 \le w < 0.20$  - Slight agreement,  $0.20 \le w < 0.40$  - Fair agreement,  $0.40 \le w < 0.60$  - Moderate agreement,  $0.60 \le w < 0.80$  - Substantial agreement  $w \ge 0.80$  - Almost perfect agreement

#### Perception of Respondents Towards Crime in the Study Area

How respondents in the study area perceived the level of criminal activities in the study area was determined using the mean of the responses of the respondents. A rule of thumb was used for interpretation purposes and a key has been generated as follows 1-1.99 (very low), 2-2.99 (low), 3-3.99 (moderately), 4-4.99 (high), and 5 (very high). See Table 12 for the mean table.

From Table 12, it is observed that the mean of the responses is 4.04 (SD = 0.46). It falls under a high margin. It was concluded using the result, that the perceived crime level in the study area is high. This report is in line with the work of previous researchers like Engelke (2013), Ibama et al. (2015), and Chirisa et al. (2016) that there is a high crime rate in the urban space if the level of unemployment is high, population explosion, overburdened social amenities, etc.

### Coping Measures Needed to Combat Crime in the Study Area

The perceptions of the respondents were sorted and ranked to determine the level of agreement amongst them on their most urgent, and this was to help determine what the needed coping strategy in their bid to combat insecurity in their neighbourhoods is. Kendall W test was carried out to determine their most ranked coping strategical needs, their level of agreement, and if the level of agreement is statistically significant. See Table 13 for the ranking of the respondents and Table 13 for the test statistics.

From Table 13, it can be observed that the presence of a civil defence office in each neighbourhood (M=1.93) is the most needed by the respondents in the study area. They asserted that the civil defence will act as a form of first responder in the advent of crime and the presence of this office will act as a fear factor in the minds of the prospective criminals. Next to the presence of a civil defence office in each neighbourhood is a need for frequent police patrol (M=2.20). Although this was one of the least the respondents claimed they relied on, they acknowledged that it is one of the best coping strategies to cope with insecurity. They suggested that with frequent police patrol and quick response time, the level of crime in the study area will be curbed to a minimum. The empowerment of local vigilantes (4.93), although it was the most used coping strategy in the neighbourhood in combating crime, it was one of the least needed coping strategies in combating crime. It was reported that although the strategy is effective to a certain limit, they are not backed by law to handle sophisticated arms and they are not formally trained to combat crime.

From Table 14, it can be observed that there is a moderate agreement (W=0.51) which is 51% agreement among the respondents. Judging by the  $X^2$  (df=15, N=15) value of 37. 895, P-value of 0.000 and an alpha value of 0.05, it can be concluded that there is a significant agreement among the respondents in their use of coping strategy in combating insecurity in the study area. The null hypothesis is rejected in favour of the alternate hypothesis

which states that there is a significant agreement in the ranking of the needed coping strategies among respondents.

#### Recommendations

It is recommended that civil defence offices should be established in each neighbourhood in the study area and there should be frequent police patrol in these neighbourhoods. Civil defence should function as an extension of the police force and also share information with the police department. There is the need for urgent installation of Closed-circuit Television Cameras (CCTV cameras) and street lights in strategic areas in the neighbourhood. A watch office can be attached to the civil defence building in which live feeds from the camera can be watched by a technical unit of both the police and civil defence agencies. Also, there should be an efficient channel of information gathering with utmost confidentiality between the informants and the respective agencies that are responsible for combating crime.

#### Conclusion

Insecurity is a growing challenge that plunders the neighbourhood of the study area. The perception of the residents towards the level of crime in the study area was high. It was concluded that armed robbery is the most dominant crime in the study area. Crime occurrence and its frequency vary across locations and times of the day. The coping strategy of the residents towards crime is the use of local vigilantes, guard dogs, police patrol, block wall fencing, etc. the most prominent is the use of local vigilantes and guard dogs. The respondents recommend the provision of civil defence offices in each neighbourhood and frequent police patrol to check the occurrence of crime in the study area.

This study contributes to the literature on insecurity and crime in Nigeria by broadening the geographic scope to include Benin Metropolis based on data from an underrepresented area. By examining multiple crime types and their cumulative effects, it offers a more nuanced understanding of community insecurity. Moreover, it provides a detailed evaluation of residents' coping mechanisms, adding depth to existing knowledge on adaptive measures.

The findings have several policy implications. Policymakers can develop more effective crime reduction strategies tailored to the specific needs and challenges of Benin Metropolis. Understanding the prevalence and impact of different crimes enables more efficient allocation of security resources. Insights into coping strategies can inform the creation of community-based programs that enhance residents' resilience and support their efforts to combat crime. By addressing insecurity, policymakers can create a more conducive environment for economic activities, thereby promoting socio-economic growth.

#### Reference

- Adedeji, I. (2023). Nigerian urbanization and the significance of affordable housing. *Journal of Service Science and Management*, 16, 351-368. doi: 10.4236/jssm.2023.163020.
- Adegbola, O. and Oluwole, O. (2019). *Urbanisation and crime in Nigeria*.

  Palgrave Macmillan, Switzerland, Gewerbestrasse. ISBN 978-3-030-19764-3
- Agbabiaka, H., Daramola, O., and Adesanya, A. (2021). Residents' perception of crime characteristic and its causation across residential densities in Mushin, Lagos, Nigeria. *Journal of Criminological Research Policy* and Practice. 8. 28 - 44. DOI: 10.1108/JCRPP-09-2021-0052.
- Agbola, T. (1997). The Architecture of Fear [Internet]. *The Architecture of Fear. IFRA-Nigeria*.1–30. Available from: http://books.openedition.org/ifra/485%3E
- Agheyisi, J. E. and Aghedo, I. (2021). Neighborhood Vulnerability to Security Threats in Benin City: The Role of Informal Housing and the Built Environment. *African Studies Quarterly* 20 (4) 21-40
- Agyei-Mensah, S., Owusu, G. and Wrigley-Asante, C. (2015). The MDGs and urban health in *Africa. International Development Planning Review* 37(1): 53-60
- Ahmed, Y. A. (2010). Trend and Pattern of Urban Crime in South Western Nigeria (Unpublished doctoral dissertation). University of Ilorin, Nigeria.
- Akinlabi, O. M. (2017). Urban poverty, social disorganization and youth crime: examining the nexus in Nigeria. *Journal of African Development*, 19(1), 97-120.
- Aluko, O. E. (2010). The impact of urbanization on housing development: the Lagos experience, Nigeria. Ethiopian Journal of Environmental Studies and Management, 3 (3)
- Azih, N. and Nwagwu, L. (2015). Repositioning Business Education for alleviating insecurity in Nigeria: Business educators perspective.
- Babatunde, A. and Awopetu, O. B. (2020). Population growth and unemployment in Nigeria. *Journal of Economics and Sustainable Development*. Vol. 11 (2) 98-108 DOI: 10.7176/JESD/11-2-10
- Badiora, A. and Afon. A. (2013). Spatial pattern of crime in Nigerian traditional city: The Ile-Ife experience. *International Journal of Criminology and Sociological Theory*, 6 (3), 15–28.
- Badiora, A. I., Oluwadare, D. B., and Dada. O.T. (2015). Nature of Residential Burglary and Prevention by Design Approaches in a Nigerian Traditional Urban Center. pp. 37–41, 2015.
- Bloch R., Fox S., Monroy J., and Ojo A. (2015) Urbanisationand Urban Expansion in Nigeria. Urbanisation Research Nigeria (URN) ResearchReport. London: ICF International. Creative Commons Attribution-Non-Commercial-ShareAlike CC BY-NC-SA. (PDF) Urbanisation and Urban Expansion in Nigeria. Available from: https://www.researchgate.net/publication/281677412\_Urbanisation\_and\_Urban\_Expansion\_in\_Nigeria [accessed Jun 06 2024].
- Bodo, T. (2019). Rapid urbanisation: Theories, causes, consequences and coping strategies. Annals of Geographical Studies.. 2 (3) 32-45 ISSN 2642-9136
- Brantingham, P. L., and Brantingham, P. J. (1981). *Environmental Criminology*. Sage Publications.
- Chirisa, I., Bobo, T. and Matamanda, A. (2016). Policies and strategies to manage urban insecurity: Focus on selected African Cities. *JOPPA*. Vol. 3 (2) 93-106
- Cohen, L. E. and Marcus F. (1979). Social Change and Crime Rate Trends: A Routine Activity Approach. American Sociological Review 44.4: 588– 608
- Cozens, Pm and Love, T. (2017). The Dark Side of Crime Prevention Through Environmental Design (CPTED). Printed from Oxford Research Encyclopedias, Criminology and Criminal Justice. 1-28 https://doi.org/10.1093/acrefore/9780190264079.013.2
- Curtis-Ham, S., Bernasco, W., Medvedev, O.N. Polaschek, D. L. L. (2023) Relationships Between Offenders' Crime Locations and Different Prior Activity Locations as Recorded in Police Data. J Police Crim Psych 38, 172–185. https://doi.org/10.1007/s11896-022-09540-8
- Darshan, K. J. (2015). Geography of Rape Crime in India: A Spatial Analysis of Official Data. *International Journal of Research in Social Sciences*. ISSN: 2249-2496
- Egharevba, J. O. and Edohen, P. O. (2023). Assessment of Recreational Aquatic Facilities in Benin Metropolis, Nigeria. *African Journal of Geographical Sciences*. 4 (1) 18-30.
- Ekpo, A. (2019). Urban design, environmental factors, and crime patterns in Nigerian cities. *Journal of Environmental Planning and Management*, 62(4), 625-642.

- Engelke, P. (2013). The security of cities: Ecology and Conflict on an urbanising planet. Atlantic Council and Stimson Washington, DC. ISBN: 978-1-61977-040-9
- Essien, E. (2023). Urban theories and urbanization perspectives in cities across Nigeria. *Environ. Research. Communications.* 5 (2023). DOI: 10.1088/2515-7620/acefb4
- Ezeajughu, M. C. (2021). High rate of unemployment and crime increase in Nigeria. Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS), 3 (1) 51 58 ISSN: 2734-2522 (Print); ISSN: 2734-2514 (Online)
- Fabiyi, S. (2004). Gated Neighbourhoods and Privatisation of Urban Security in Ibadan Metropolis.
- Farodoye, S. O., Olawuni, P. O., Oladehinde, G. J., Atoyebi, O. S. and Ayoola. L. O. (2021). Spatial Analysis of Residents' Response to Fear of Crime in Osogbo, Osun State, Nigeria. *Mediterranean Journal of Social Sciences*. 12 (2).
- Felson, M. and Cohen, L. E. (1980). Human Ecology and Crime: A Routine Activity Approach. *Human Ecology* 8.4: 389–406.
- Goldsmith, R. (2010). *Vancouver ranked the most livable city*. Reuters, USA. p. 2.
- Herald (2010). Harare records a decline in crime reports. Zimpapers, Harare.
- Ibama, B., Dike, E. C. and Wocha, C. (2015). Physical planning: A panacea for urban security challenges in Port-Harcourt Municipality. *International Journal of Scientific and Engineering Research*. Vol. 6 (10) 215-226. ISSN 2226-5518.
- Marenin, O. and Reisig, M. D. (1995). A general theory of crime" and patterns of crime in Nigeria: An exploration of methodological assumptions. *Journal of Criminal Justice*, 23, 501-518.
- Miró-Llinares, F., Moneva, A. (2019). Environmental Criminology and Cybercrime: Shifting Focus from the Wine to the Bottles. In: *The Palgrave Handbook of International Cybercrime and Cyberdeviance*. Palgrave Macmillan, Cham. <a href="https://doi.org/10.1007/978-3-319-90307-1\_30-1">https://doi.org/10.1007/978-3-319-90307-1\_30-1</a>
- Mohammed, S. B. and Musa, Y. (2023). Application of the crime pattern theory to Nigeria's (in) security challenges. Journal of Human, Social & Political Science Research. 28(6) 125-136. ISSN:2416-7999.
- Moser, C. O. N. and Rodger, D. (2005). Change, violence and insecurity in nonconflict situations. Overseas Development Institute, Westminster Bridge, UK. ISBN 0 85003 748 4
- Obeng-Odoom, F. (2013). Governance for pro-poor urban development: Lessons from Ghana. London, Routledge.
- Ogunbodede, E. F. and Balogun, T. F. (2013). An Integrated Remote Sensing and GIS Approach in Monitoring Urban Expansion in Benin-City, Nigeria. *International Journal of Scientific & Engineering Research*, Vol 4, (5) pp 734-758. ISSN 2229-5518
- Onokerhoraye, A. G. (1995). Benin: A Traditional African City in Transition. Benin City: University of Benin
- Oteng-Ababio, M. and Melara, J.E.A. (2014). Paradigm of mediocrity: Poverty and risk accumulation in urban Africa the case of Korle Gonno, Accra. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 7(1): 45-61
- Owagbemi, G. O. (2017). Towards Improving Security Awareness about Armed Robbery among the Akoko of Ondo State, Nigeria. *International Journal of Social Sciences and Management Research*. Vol. 3 No.5 2017 ISSN: 2545-5303.
- Owusu, G. (2016). Introduction: Urban Crime and Poverty Nexus. *Ghana Journal of Geography* Vol. 8(1) 1-10
- Oyeleye, O. I. (2013). Challenges of Urbanisation and Urban Growth in Nigeria. *American Journal of Sustainable Cities and Society*, 2(1).
- Popoola, A., Alabi, M., Ojo, A. and Adeleye, M. (2018). Household and Neighbourhood Responses to House Burglary in Ibadan. *Journal of African Real Estate Research*, 3(2), pp.150-178. DOI: 10.15641/jarer.v3i2.575.
- Radetskiy, E. L., Spahr, R. W. and Sunderman. M. A. (2015). Gated Community Premiums and Amenity Differentials in Residential Subdivisions. *Journal of Real Estate Research*. 37(3) 405–38. Available from:

  <a href="https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalInformation?journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.com/action/journalCode=right-10">https://www.tandfonline.co
- Shaw, C. R., and McKay, H. D. (1942). *Juvenile Delinquency and Urban Areas*. University of Chicago Press.
- Szreter, S. (1997). Economic growth, disruption, deprivation and death: On the importance of the politics of public health for development. *Population and Development Review*, Vol. 23, 702–703.

- Tai, A. J., and Esetang, A. (2024). Insecurity in Nigeria: Forms, effects and remedies. *International Journal of Culture and Society* 2(1): 38-48. DOI: 10.5281/zenodo.11060609
- Takagi, D., Ikeda, K.I., Kobayashi, T., Harihara, M., Kawachi, I., 2016. The impact of crime on social ties and civic participation. J. Community Appl. Soc. Psychol. 26 (2), 164–178
- Todd, K. (2007). Problem-Oriented Guides for Police Problem-Specific Guides Series Guide No. 46: Thefts of and from Cars on Residential Streets and Driveways. Office of Community Oriented Policing Services, U.S. Department of Justice. <a href="https://www.cops.usdoj.gov/">https://www.cops.usdoj.gov/</a>
- Ukwayi, J. K., Ojong, F. E. and Anam, B. E. (2017). Urbanization and crime in Nigeria: Addressing key challenges of development administration. *International Journal of Advanced Research in Social Sciences, Environmental Studies & Technology*. 3(1)107-119
- Umoru, T. (2019). Crime prevention and control: analysis of police and public perception. *Enugu Journal of Social Sciences*. 4(1) 59-76.

- UN HABITAT/UNHSP (2007). Enhancing urban safety and security: Global Report on Human Settlements 2007. London: Earthscan.
- UN-Habitat (2016). *Urbanisation and Development: Emerging Futures*. World City Report.
- United Nation Department of Economic and Social Affairs (UNDESA), 2014.

  World Economic Situation and Prospect. New York. United Nations.
- United Nation Department of Economic and Social Affairs (UNDESA), 2019.

  World Population Prospects 2019: Highlights. New York: United Nations.
- United Nation, (2007). Principles and recommendations for population and housing census. New York. United Nations.