

Locational Analysis of Police Station and Crime Spot in Ikeja Lagos Nigeria

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ABSTRACT

Insecurity compromises safety of lives and properties; threatens the quality of life, desecrates human rights, destabilises social and economic milieu and thwart sustainable development. Many researchers have employed economic variables, social factors, and value change to determine the causes of crime without considering the relationships between location of police stations and crime spots. Geographic Information Systems was employed to collect coordinates of locations of police stations and crime spots. Nearest Neighbour Analysis was employed to determine the spatial pattern of police stations and crime spots. There were 13 police stations and 11 crime hotspots in Ikeja LGA. Residents covered a distance of more than 2km to access police stations, while majority of crime spots were less than 1km from police stations. Location of police stations close to crime spot alone cannot solve the issue of crime; therefore sufficient equipment should be provided by government to curb crime in Ikeja LGA.

Keywords: Police station, crime spots, nearest neighbour analysis, Ikeja LGA.

INTRODUCTION:

Globally, insecurity compromises safety of lives and properties; threatens the quality of life, desecrates human rights, destabilises social and economic milieu and thwart sustainable development. Dearth of sustainable solution to social, economic and political challenges and the failure to promote inclusive polices targeting the vulnerable groups intensify urban violence and crime (UN Habitat, 2005). The alarming increase in the rate of criminal activities in Nigeria as reported daily in the local news and media is perhaps reflections of the nature of every society where goals are used to measure individuals status in society (Lagos State Government, 2016). Crime causes loss of lives and properties as well as overwhelming fear of insecurity. Without a deliberate effort to address this situation, the prospects of sustainable development are severely limited (Usman et. al. 2012). These have serious consequences for democracy, economic development, social capital and associational life generally. Individual and societal aspirations for democracy, development, human rights, high standard of living are undermined by high level of crime.

The relationship between crime and evolution of mankind is considered a historical one as Cain (first son of Adam) committed the first violent crime when he murdered his brother Abel because of jealousy (Odekunle, 2004; Hafiz and Muhammad, 2011). Crime started in the primitive days as simple-unorganised sector to a complex-organised one. The existence of crime and its challenges have spanned the history of mankind owing to its complex nature, causes and consequences. These must have prompted the interests of some academic disciplines such as criminology, sociology, geography, psychology, and demography in the study of crime (Hafiz and Muhammad, 2011). A large proportion of the men of the Nigerian Police Force (NPF) can hardly ascertain the areas under the jurisdiction of their stations or define the shortest route from their station to specific crime spot (Nzelibe and Bello, 2018).

Crime spot mapping has become a popular analytical technique used by security agencies, police and law enforcement agencies to visually identify where crime tend to be the highest, aiding decision-making that

pinpoint where to target and deploy resources (Murray, 2001; Onovo, 2005). Its application has been used to support the operational briefing of police patrols (Hough and Tilley, 1998; La Vigne and Wartell, 1998, 1999; Harries, 1999; Goldsmith et al, 2000). In essence, crime spot mapping is a technique used to help determine where crime may happen next, using data obtained from the past to inform the future actions. Its acts as a basic technique for predicting where crime may occur, using the premise that location pattern of crime is a useful indicator for future occurrence.

The incidence of both organised and unorganised crime in Lagos and the attendant impacts are rife. Smuggling of contrabands and firearms, money-counterfeiting, money-laundering, armed robberies, kidnapping, car hijacking, and human trafficking have become sources of worry to the Nigerian government (Olujinmi, 2005). Likewise, incidents of high profile crime and politically motivated killings and kidnapping have lately compounded the complexity of the crime situation in the Nigeria. Increase in common crimes has been a serious public challenge in Lagos State. This is endangering lives and properties, hampering business activities, and displacing foreign and local investors. Conversely, the extent of security effectiveness could be determined according to the distance from the security point. The persistence of insecurity even in places around the security locations have not been documented, this in contrast to the expected norm. Also, the ideal locations of security post have not been established where certain yardstick ought to be considered for effective protection. The issue here is simply whether or not location of Police station is a function of insecurity.

Crime issues in Lagos, Nigeria:

The Lagos megacity is faced with a plethora of security issues ranging from the high prevalence of miscreants i.e. area boys, urban crime, juvenile delinquency, to ethnic clashes and political violence (Oduwaye and Lawanson, 2007). Some crime mitigation efforts adopted by both government and community association include establishment of patrol teams of police and military personnel, such as Rapid Response Squad, the use of technology enabled devices such as toll free emergency telephone numbers and enactment of curfew on vehicle and human movement such as ban on commercial motorcycles from 10:00pm to 6:00am. Despite the enforcement of these strategies, Lagos State has the highest percentage share of total crime rate reported 50,975 (37.9%) in 2018 (National Bureau of Statistics (NBS) 2018), crime rate has continued to be on the upsurge in the Lagos megacity, largely due to the failure of these strategies to consider the inter-relationship between crime and the environment. (NPF 2012) has catalogued a history of conflicts, crime and insecurity in Nigeria since independence in 1960. Here, the conflicts which result in insecurity are traced to the colonialists creating antagonistic ruling class along ethnic and religious lines.

Thus, the northern part of Nigeria has had a long history of security challenges, communal and ethno-religious crises. For example, in Plateau State, there have been many outbreaks of bloody violence between different communities since the return to democracy in 1999. There have also been riots in urban centers of Kaduna and Kano, and for several decades there has been simmering conflict in the Tafewa Balewa district of Bauchi (Barker, et. al., 2002). According to (Barker, et. al., 2002) and (Aziz 2012), when viewed from outside, it does seem that these conflicts boil down to religious differences, tensions between blocs of Muslim and Christian inhabitants. But on a closer consideration, one finds that politics and control of government patronage are the primary causes of many of these conflicts. However, the Boko Haram insurgency which surfaced in 2009 with bombing attacks and killings which as at last count, have left over 16,000 Policemen, soldiers and civilians including politicians dead (Brown, et. al., 2012) remains one of the recent trends in regionally-based related-violence dimensions to security challenges facing Nigeria.

Boko Haram, otherwise known as Jamaatul Alissuma lid da a wawal Jihad, started its operation in Bauchi State on July 26, 2009 and has since spread to other States in the northern parts of Nigeria. Since then, the group has existed with known preferences in religious belief and social practices. But as (UN 2011) has observed, “the root causes of resort to violence and criminality in order to influence public policy is rather deep-seated and beyond the sectarian”. This is because the attacks of the group have been targeted or directed at the State, its institutions, and the civilian populations. Several police stations including the Force Headquarters, Abuja; army barracks, schools, government establishments and places of worship have been attacked in several states of the Federation (UN, 2011). But the attack on the UN office in Abuja in 2011 was, according to (UN 2011), “a game-changer with new dynamics, far reaching and imponderable reverberations that dramatically altered the scope, intensity, and focus of Boko Haram’s Violence and mission”. Thus, some analysts have argued that the Boko Haram

induced security crisis in the north is more religious than political. Those who argue along this line submit that beginning from 1987 to the controversial introduction of Sharia penal system by some States in the north in 2000, some political leaders have laid the foundation for extremist sects to emerge through religious manipulation which coupled with widespread illiteracy, poverty and a weak leadership, has since allowed a violent group like Boko Haram to emerge (Farrall, et. al., 2000). Others have argued that the current insecurity is worsened or aided by the high level of poverty in that region in particular and Nigeria in general (Johnson, 2000). According to (Johnson 2000), "...the Boko Haram phenomenon has a deep economic root more than any other perspectives from which the investigating intelligence can suggest". These realities are much more obvious in rural areas. A factual indicator is the result of the Harmonized Nigeria Living Standard Survey published by the National Bureau of Statistics in 2012, which showed that the North scored badly and accounted for the large proportion of Nigerians living in poverty (NBS, 2018).

Ikeja Local Government Area (LGA):

Ikeja Local Government Area is one of the twenty Local Government Areas in Lagos State. It is one of the fastest growing Local Governments in Lagos State this is due to the privilege of having a State Capital located within its boundary with both the administrative capital and Headquarters of Ikeja Local Government Council Area of Lagos State. Ikeja Local Government is located in the north-central part sharing boundaries with Ifako-Ijaiye, Agege, and Alimosho Local Government Council Areas in the eastern part, while Oshodi-Isolo Local Government Council Areas forms the boundary in the southern part and Ogun State in the north (Fig 1). The geographical characteristics of Ikeja area are known to be a leveled land surface, the geologic setting of Ikeja consists of quaternary alluvial deposits such as red-yellow, red-brown grey and sandy, cliffs, silt, gravel and cowries' shells and other doctrinal materials in slightly elevated upland areas where dry patches occur. The pattern of settlement is nuclear/clustered with surfaces tarred, concreted or bare. Most of the lands were planned as residential but presently it is now more of commercial zone.

RESEARCH METHODOLOGY:

Primary and secondary data were used in this study. The former were coordinates of police stations and crime spots collected with the aid of Global Positioning Systems (GPS), while the latter were number and locations of police stations, types and crime spots; they were collected from Ikeja Area F Command. The coordinates were prepared in Excel Sheets and exported into ArcGIS 10.4 for pattern analysis.

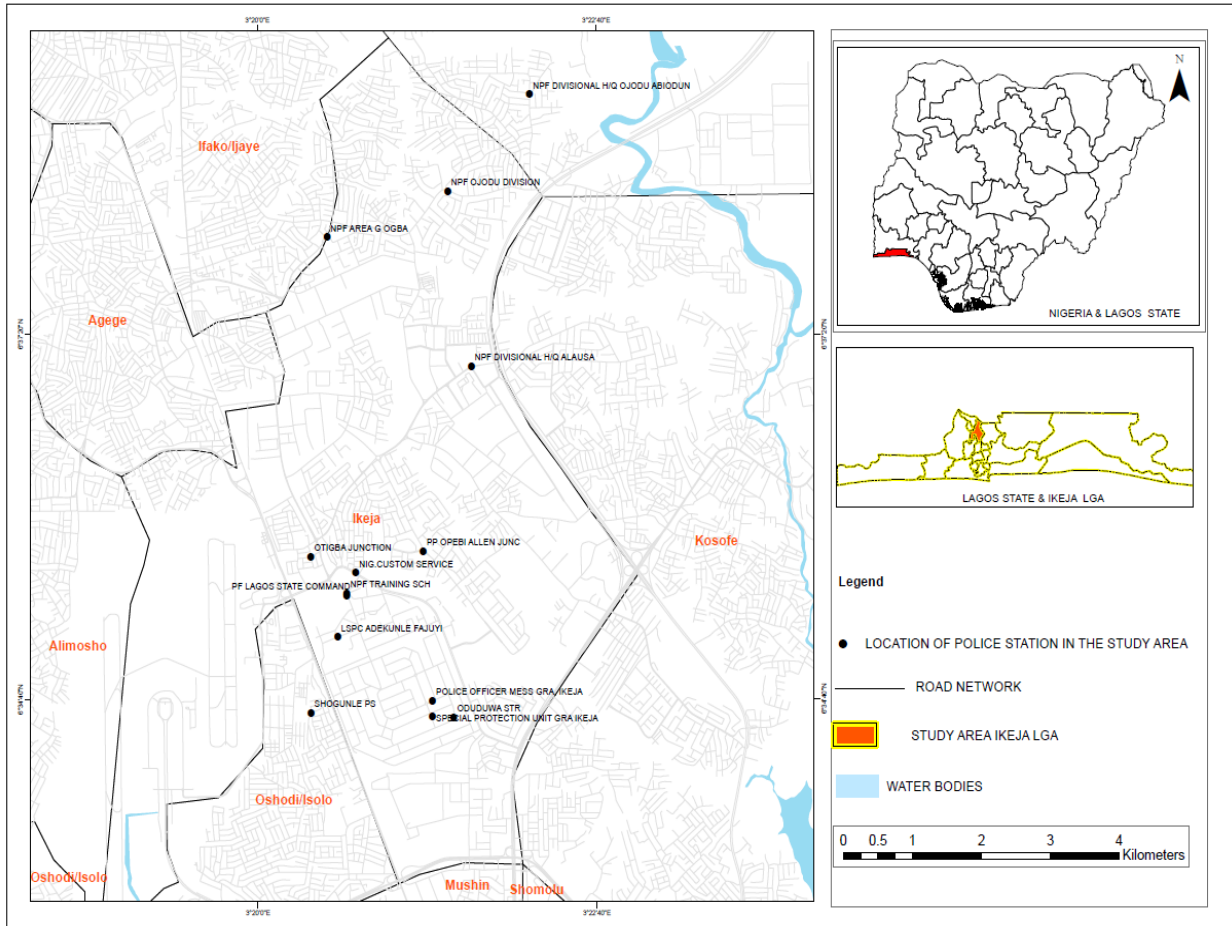
RESULTS AND DISCUSSIONS:

Spatial distribution of police stations:

There are 13 police stations in Ikeja LGA (Fig. 1). They are located in NPF Divisional Headquarters Ojodu, Abiodun Division, NPF Ojodu Division, NPF Area G Ogba, NPF Divisional Headquarters Alausa, NPF at Ola Ayeni Street, NPF at Opebi Allen Junction, Nigeria Custom Service, NPF training (NPF Lagos State Command) Police stations at Adekunle Fajuyi, Shogunle Police Post, Police Officer Mess GRA Ikeja, Oduduwa Street (Special Protection Unit Ikeja GRA), Onikere Police Post (FSARS). To determine accessibility and distance covered by residents to the police stations, a buffer of 2000 meters (2km) radius was created in ArcGIS 10.4 (Fig 2). The analysis revealed that residents covered more than 2km to the police stations.

The residents living at the edge of the buffer of NPF Divisional Headquarters Ojodu were 2.5km away; that of Abiodun Division was 2.2km, while it was 2.8km at NPF Ojodu Division. At NPF Area G Ogba, the residents at the verge of the buffer were 4.2km away; 3.5km was recorded for NPF Divisional Headquarters Alausa, while 2.7km was obtained for NPF at Ola Ayeni Street. The farthest distance from NPF Opebi Allen Junction was 3.1km, that of the Nigerian Custom Service, NPF training (NPF Lagos State Command) was 2.3km. Police stations at Adekunle Fajuyi was 2.4km away from residents at the margin of its area of jurisdiction, and 3.6km for Shogunle Police Post. It was 2.9km for Police Officer Mess GRA Ikeja; 2.3km for Oduduwa Street (Special Protection Unit Ikeja GRA), and 4.1km for Onikere Police Post (FSARS).

Fig 1: Spatial distribution of police station in Ikeja LGA

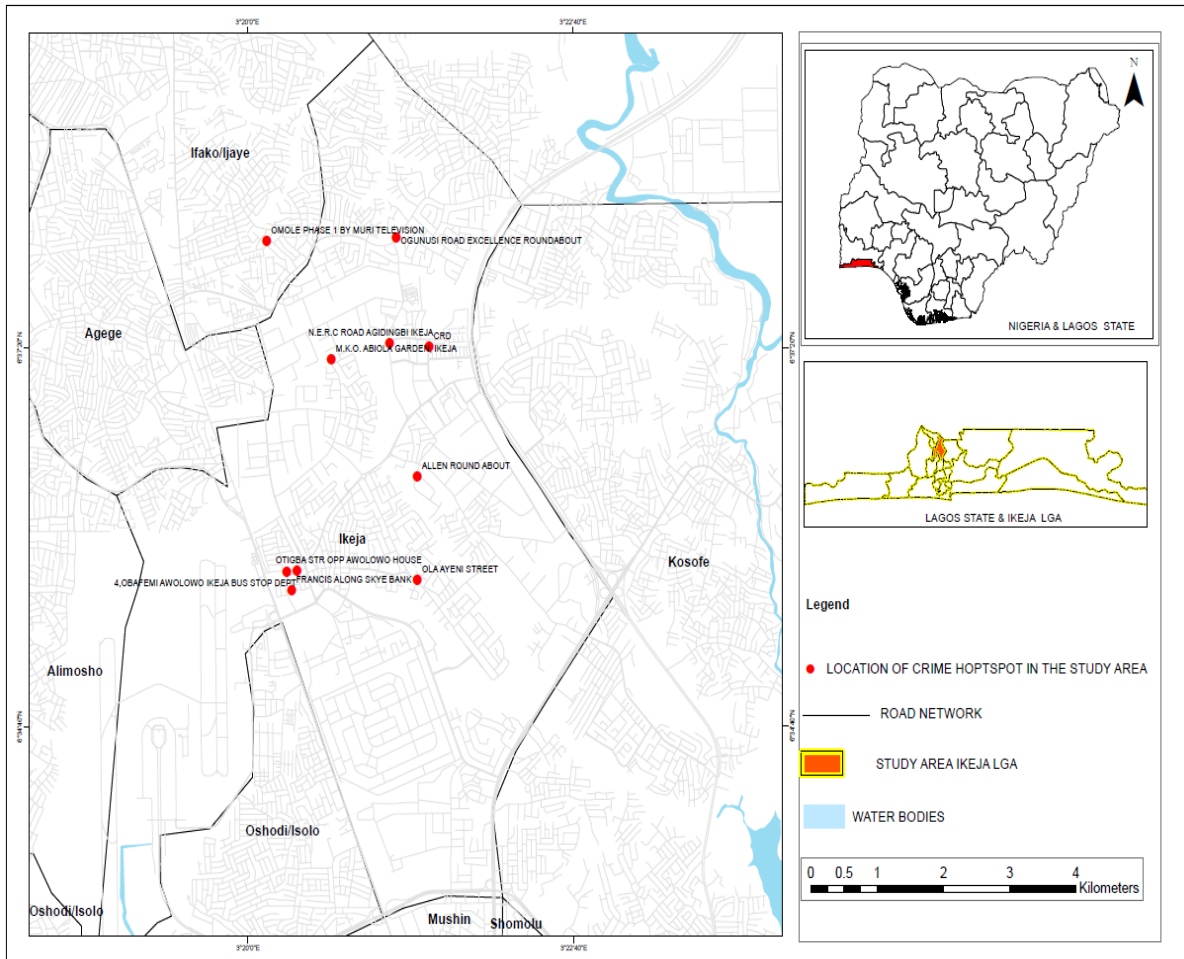


Source: Author’s analysis (2019)

Spatial distribution of crime spots:

A crime spot generally is defined as an area containing dense cluster of criminal incident (Berry and Horton, 1970). In essence, the identification of crime spot helps public safety instructions to allocate resources for crime prevention scope. The distributional pattern of crime as shown in Fig. 2 could aid the police personnel to quickly respond to reported crime, thereby reducing crime and improving locational security. Crime spots were not found within 200km radius of Adekunle Fajuyi Police Post, Police Officers Mess, and GRA Ikeja. However, crime spots within Ikeja metropolis were Opebi and Allen junctions. Furthermore, the analysis revealed that crime spots were concentrated around Computer Village, Ikeja rail way, Otigba/Oguniyi, Ola Ayeni, Ikeja railway line, Otigba, Awolowo House and Lattef Jakande Road. The crime spots were more concentrated in areas/streets within computer village; due to the presence of informal computer vendors, artisans, and small scale business vendors who were parading themselves as professionals at the Ikeja computer village all in the guide of selling, repairing computers and other business transactions; and robbing peoples.

Fig. 2: Crime spots in Ikeja LGA

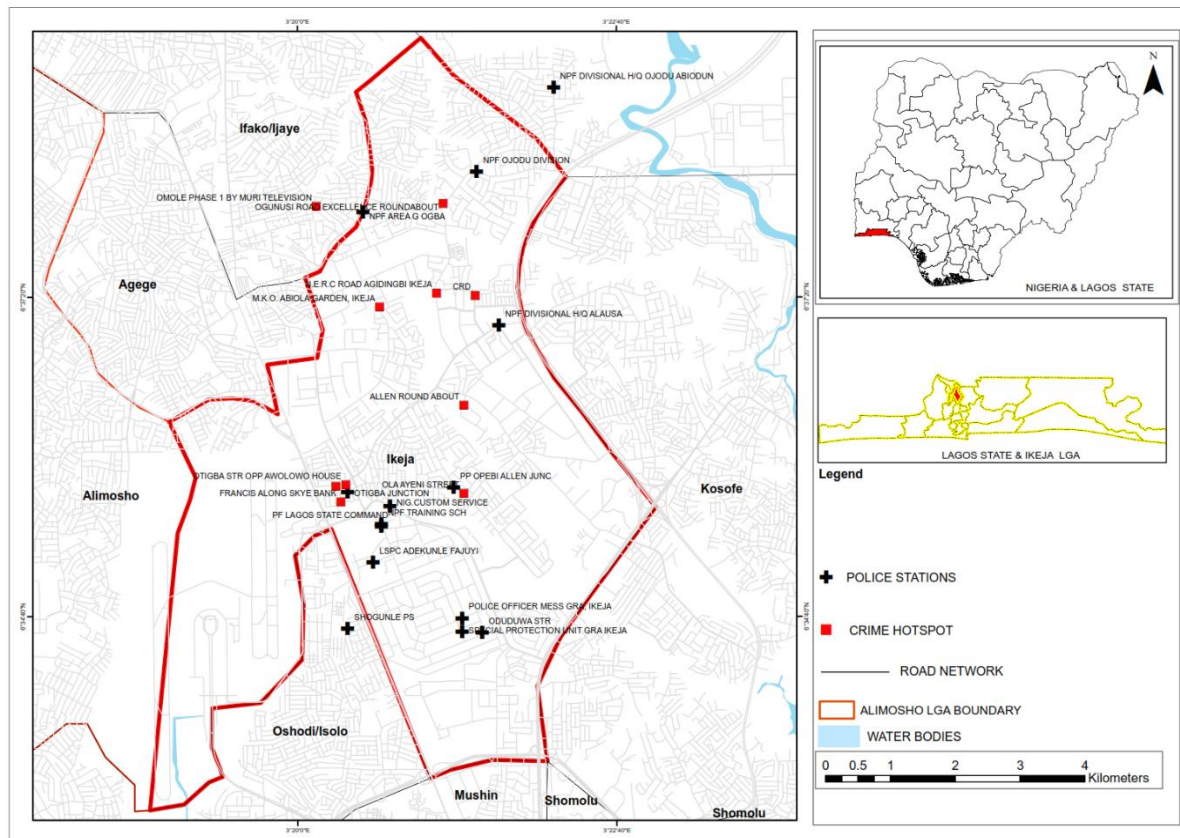


Source: Author's analysis (2019)

Spatial interaction between police station and crime spot:

The distance between police stations and crime spots were also captured (Fig. 3). The farthest crime spot from NPF Divisional Headquarters Ojodu was 1.5km away; that of Abiodun Division was 1.1km, while it was 0.8km at NPF Ojodu Division. Crime spot was 1.3km away from NPF Area G Ogba; it was 0.5km for NPF Divisional Headquarters Alausa, while 1.4km was recorded for NPF at Ola Ayeni Street. The crime spot was 0.5km away from NPF Opebi Allen Junction, that of the Nigerian Custom Service, NPF training (NPF Lagos State Command) was 2.3km. Police stations at Adekunle Fajuyi was 2.4km away from crime spot and 10.6km for Shogunle Police Post. It was 12.4km for Police Officer Mess GRA Ikeja; and 14.5km from Oduduwa Street (Special Protection Unit Ikeja GRA). The analysis showed that some police stations (NPF Ojodu Division, NPF Divisional Headquarters Alausa, and NPF Opebi Allen Junction) were less than 1km away from crime hotspot, yet they could not contained the incidence of crime.

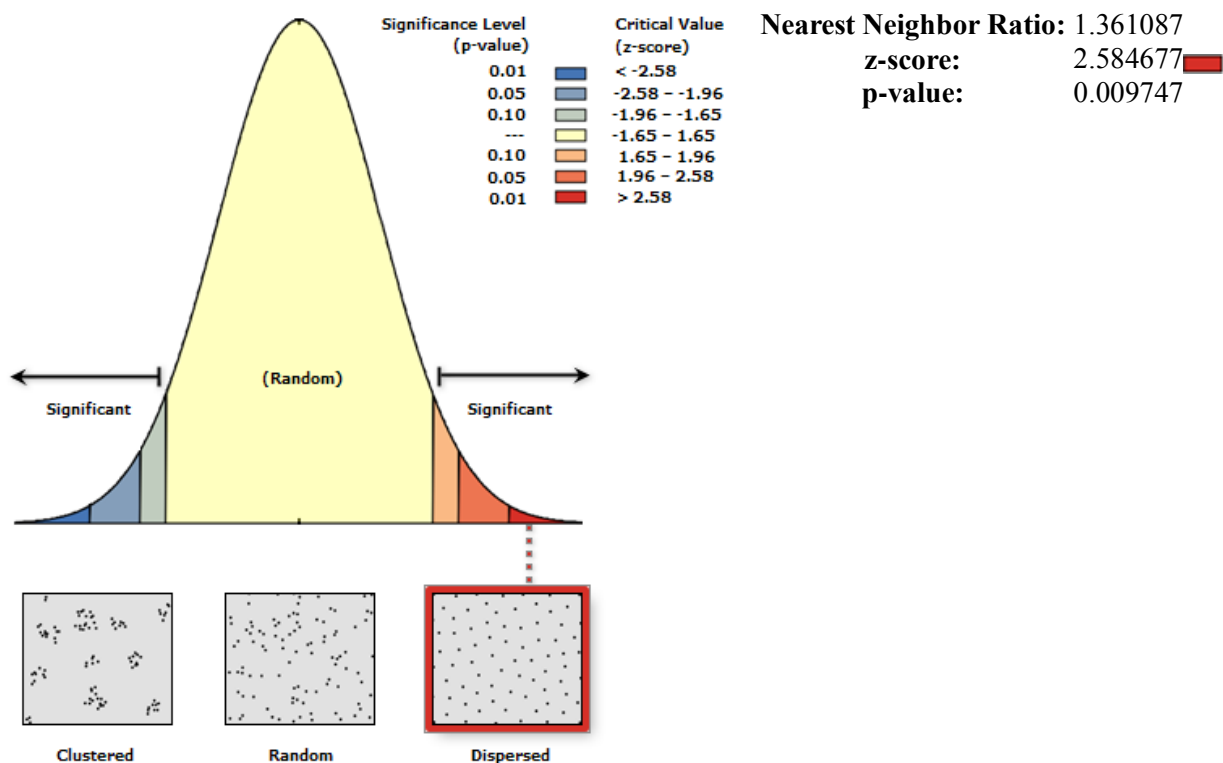
Fig. 3: Spatial relationships between police stations and crime spots.



Source: Author’s analysis (2019)

Furthermore, the location of police stations and crime spots were subjected to Nearest Neighbour analysis in ArcGIS 10.4. The results revealed that the observed mean distance between adjacent or police stations and crime spot is 873.5001 meters as opposed to the expected statistical mean distance of 641.7668 meters. It also showed that the locational pattern of the police station was clustered with Z-scores of 2.58, which was less than 1% probability that the clustered pattern could be as a result of random chance. As revealed in Fig. 4, one Z-score can be quantitatively determined and is given as less than <-2.58 which describes the kind of clustered pattern. If the index is less than one (1), the pattern exhibits a clustered and if the index is greater than one (1) the trend is dispersion or competitive. Thus, the clustered pattern can be said to be severe in its cluster since its derivation from zero (0) is slight. This is from a Nearest Neighbor Ratio (NNR) was 1.361087. The distance between adjacent nearest police station is important as it plays a critical role in minimising crime rate in the study area.

Fig. 4: Proximity analysis between police stations and crime spots



Given the z-score of 2.5846768466, there is a less than 1% likelihood that this dispersed pattern could be the result of random chance.

Observed Mean Distance:	873.5001 Meters
Expected Mean Distance:	641.7668 Meters
Nearest Neighbor Ratio:	1.361087
z-score:	2.584677
p-value:	0.009747
Average Nearest Neighbor Summary	
Input Feature Class:	Police data Prj
Dataset Information	

Summary, recommendations and policy implications:

The study discovered that there were 13 police stations in Ikeja LGA and that residents covered more than 2km to access the police stations. Crime spots were concentrated around Computer Village and Alen Avenue and were more than 1km away from the existing police stations. Therefore, police stations were farther away from crime spots in Ikeja LGA. The nearest neighbour analysis revealed variation in mean distance (873.5001meters) between police stations and crime spots as against expected mean distance (641.7668 meters). The locational pattern of the police station was dispersed with Z-scores of 2.58.

RECOMMENDATIONS:

Crime is a social milieu and vice to any community which as well its occurrence require quick response and prompt service delivery by law enforcement agencies, police, intelligence unit and other stakeholders involved directly or indirectly in combating crime in the society. Based on the research findings of this works, if the following recommendations are objectively factored into policy implications, it will go a long way towards finding sustainable solutions to the incidence of crime against loss of lives and property.

1. Government should provide adequate funding for procurement of equipment, infrastructural development and opening of police stations and check point in strategic location for combating crime in the society.
2. There should be integrated and robust strategies and policy frameworks to strengthening urban security for social and economic stability and sustainable development.
3. There should be long-term development plans and programs for social. Economic and that can promote good governance through political will, transparency and accountability by political office holders to promote persistence decrease in crime and violence.
4. Provision of employment and entrepreneurial development to the teeming youth so as to get them away from street and crime-thinking.
5. Forming synergies and partnership through Public-Private Partnership (PPP) between Nigeria police, enforcement agencies, vigilante group and other para-military bodies for effective community policing.
6. There should be manpower development and capacity building through training and re-training on hands-on-equipment training, surveillance by law enforcement agents, police and other intelligence units for crime prevention and security.
7. There should be institutional linkages among NPF, NIGERIA PRISON SERVICE, CIVIL DEFENSE CORPS, Religious Bodies and other relevant stakeholders.
8. There should be massive campaign and awareness through the mass media and grassroots sensitization towards explaining the menace of crime and punishment afforded under the law.
9. Development of sophisticated technologies for surveillance and DNA prioritization.
10. There should be quick response and prompt service delivery in responding to distress calls by law enforcement agencies.
11. Government should emphasize the opening and construction of street gates where necessary this also helps in forestalling crime.

Furthermore, government at all levels should encourage the giving out of stipends, social security or food items to keep these miscreants off the neighborhood. Government should adhere strictly to urban planning and urban security because physical planning is significant to crime occurrence and prevention because the physical environment is connected with the occurrence of crime and it also forms the space within which the police operates. Government at all levels must ensure adequate participation of residents in sighting and provision of police facilities. Also, there should be greater incentives for police officers posted to crime hotbeds to improve their well-being and increase job satisfaction.

Government should also provide vocational basic training skills and opportunities for most of these offenders where they can eke out of a living. By doing so, the rate and intensity of crimes within neighborhoods will reduce drastically. This concept if employed by government at all levels will improve surveillance, visibility, territoriality, access and escape routes, image and aesthetics and target hardening. Making cities secure depends on how one deals with the threats facing them, which in turn depends on how one deals with the design and policy models employed to combat such forces that are shaping the cities and causing the threats. Also community involvement needs to be interactive and must be inclusive, everybody will be interested in security and urban planning, within local communities, the following must be done.

- Identification of existing problems, (Crime, drugs, quality of life).
- Establishment of community policing philosophy engaging all key stakeholders.
- Initiation of community mobilization strategies
- Pursuit of strategies that are pragmatic and effective.

Public security is a key concept in the contemporary 21st century social development strategy. It must therefore be reviewed holistically as a public good for social well-being to be promoted by all institution and the public at large.

CONCLUSION:

Crime is a phenomenon which is universal in its varying forms in all cultures and societies at all stages of organization. The alarming increase in the rate of criminal activities in Nigeria, as reported daily in the local news and media is perhaps a reflection of the nature of every society where goals are used to measure individuals status in society. The Nigeria Police are not well equipped, this is militating against the effective prevention, detection and control of crime (Uhunmwangho and Aluforo, 2011). Nwagboso

(2012) explained that Police cannot perform their noble role effectively and efficiently except when provided with manpower. The level of effectiveness of the Police in any country depends mainly on the level of manpower and equipment provided. The level of violent crime causes loss of life and property as well as overwhelming fear of insecurity. These have serious consequences for democracy, economic development, social capital and associational life generally. Crime however occurs mostly in urban settings. The Nigeria security agent especially Nigerian Policemen are not particularly effective in foreseeing where and when specific future crimes will take place. The distribution of crime across the landscape is geographically random since crimes are human phenomenon.

A geographic information system (GIS) as a tool can be used by police personnel to plan effectively for emergency response, determine mitigation priorities, analyze historical events and predict future events. GIS can also be used to get critical information to emergency respondents upon dispatch or while on route to an incident to assist in tactical planning and response. The ability to access and process information quickly while displaying it in a spatial and visual medium allows agencies to allocate resources quickly and more effectively, in the mission-critical nature of law victim is often crucial to determine the manner and size of the response. GIS software helps co-ordinate vast amount of location based data from multiple sources.

Policy implication:

Important policy implications can be raised directly from the findings of this research. The employment of crime density can help law enforcement agencies map a more accurate pictures about the type and intensity of offences across urban neighborhoods without the bias caused by the population based on crime rates. In addition, as unveiled by previous researchers, the concentration of poverty, culture and racial segregation are two most important factors associated with the occurrence of crime, any strategies or effort to reduce poverty in urban areas.

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