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Criminality in public places of urban communities: Examining crime incidences around transit stop stations in Ibadan, Nigeria

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Abstract

The study examined pattern of crime in and around public automobile stop stations in Ibadan, southwestern of Nigeria. The study area was stratified into the high, medium and low density areas where a bus station each was randomly selected. Crimes as assault, sexual harassment and aggression were found to be common to bus stations in the high density areas, stealing was mostly associated with bus stations in the medium density areas while the crime of acquisition was the problem of bus stations in the low density areas. Public disorderliness was evenly distributed across the bus stations in the high, medium and low density areas. Furthermore, individuals were more susceptible to crime during the evening-night, weekend and festive periods. Differences in distribution of crime among the selected stop stations were found to be significant ($F=57.701$; $p=0.00$). The study concluded that crime clustering in and around bus stations in Ibadan, Nigeria follow a pattern related to the city's centre, zone of transition and suburban problems.

Keywords: Transit stop, social disorganization, routine activity, dangerous areas, crime target, offender.

Introduction

One of the most recognized facts about crime in empirical studies is that its occurrence is not randomly distributed across neighbourhoods within a city (Badiora and Abegunde, 2015; Hopkins-Burke, 2005; Karmen, 2004). The implication is that crime does not occur equally in all areas; rather it tends to concentrate or cluster in certain locales and less concentrated in other areas. This enables residents to identify where 'safer' and 'dangerous' places/hot-spots exist within the city (Global Report on Human Settlements, 2007). Several studies have documented the morphology of high crime places to include drug dealing locations, street prostitution locations, convenience stores, bars/nightclubs, gang violence niches and transport stations. In the context of this paper, Page *et al* (2001a); Page (2001); Smith and Clarke (2000) opined that crime incidents occur frequently in locations associated with public transport such as train stations, taxi ranks, bus-stops or modal interchanges, as well as on trains and in taxis while crimes such as pick-pocketing, bag snatching, costume jewelry theft, assault, assaults and rape are the most prevalent.

Transit stop brings together more people in

public places, thereby increasing the opportunity for a crime to occur (Brantingham and Brantingham 1991; 1993; 1995; Cao and Maume 1993; Ceccato 2008). Contributing further, Brantingham and Brantingham (1991) concluded that the presence of a transit station often affects the relative danger in the immediate area. This suggests that transit stations and stops serve as behaviour settings conducive to criminal activity. The Brantinghams describe a behavioural setting as a location where desired behaviour may be carried out. For instance, an unoccupied household/building may be a behavioural setting for a person seeking to commit burglary. A shop may be a behaviour setting for a juvenile who desires to steal. Similarly, the area around a transit stop may serve as a behaviour setting for individuals looking for opportunities to commit crime, due to the routine activities of the commuters and others in the area and the environment itself.

As expounded by Block and Block (2000), transit stops are transitional breaks in transportation, where standing around is not suspicious activity. By this definition, transit stops are easy to enter and exit. Potential offenders usually leave some distance from the transit stop and loiter to carry out crime, their

targets most likely are not be familiar with the surrounding area, and are unlikely to have previously met potential offenders. From this appraisal, the transit stop environment encompasses factors whose presence is necessary for crime to be committed. First, lack of suspicion by others aids the offender in diverting attention from him or herself. Second, easy entrance and exit keep the risk of getting caught relatively low, and finally, the target's lack of knowledge about the area and others in the area leaves him or her susceptible to victimization. Previous researches such as Karmen, 2004; Thrasher and Schnell, 1974 validated the claim that the characteristics of transit stops and their surrounding environment facilitate the occurrence of crime.

There is therefore a seemingly rampant nature of criminal behaviour around stop stations across urban centres in the world. The degree of commercial activities in Ibadan city in Nigeria, especially in residential density areas is high, attracting many social vices (Abegunde and Ebehichalu, 2008). The authors observed that the public transport facilities in residential areas of Ibadan have become a platform for crime is the public bus stops. The design of public transit bus stations in the city is generally poor. Aside from this, most parks in Ibadan do not enjoy basic services, particularly electricity supply in the evening and night. However, commercial buses run till late hours in the night. The resultant effects are squalid environments acting as breeding ground for criminal activities both within and around such stations. Hence, the growing concerns on the rapidly increasing problem of crime on road transport terminals and route networks in Nigeria (Odufuwa and Fasina, 2012). Despite this fact, it is noticeable that a general lack of information and studies on how this disorder manifests still exists.

In line with the observations above, this study opined that the evaluation of crime site locations, their geographic connections and the characteristics and demography of the surrounding neighbourhoods were relevant for targeted crime prevention and control. Using crime data obtained from Ibadan, Nigeria- the largest city in West Africa, this research interest focused on the spatial nature of crime and the assertions of environmental criminology, and advocated targeted crime prevention and control for transit stations, characterized by high rates of crime.

Transit stops and criminality of a place

Transit stops are those places where people come together to go on, or get off board in order to reach a new trip's end. Transit stop can be bus stops, rail stations or larger arrangements where several transportation modes come together (central station) as well as the immediate and surrounding environment. The use of the concept 'transit stop' in this study however, is limited to automobile or motor vehicle stop stations. A place can be viewed geographically and sociologically. Geographically, place can be defined as a fixed physical environment that can be seen completely and simultaneously, while a sociological concept of a place can be defined as the social organization of behaviour at a geographic place (Sherman, Patrick and Buerger, 1989).

To this end, transit stops and their immediate surrounding environments can be considered places. They fit both the geographical and sociological definitions of place in two ways. First, just as is the case with people, places can be seen as having routine activities (Sherman *et al* 1989). Transit stop environment encompasses its own set of behaviours which can be considered the routine activities of the transit stop environment (Brantingham and Brantingham, 1996). These activities add to the potential criminality of the area and increase the amount of potential targets. Second, transit stops are often located in a fixed physical environment with a high level of activity (Brantingham and Brantingham, 1996). This adds to the density of victims in the surrounding environment. Mostly, this environment is disorganized, with high population density, population mobility and in some instances, poverty may feature. These two scenarios are explained by routine activity and social disorganization theories. These theories are exploited in the next section of the paper.

Transits stops, routine activity and social disorganization

Two fundamental and relevant principles are examined in relation to transit stop. They are routine activity theory and social disorganization theory. Routine activity theory suggests that each successful crime has at least one motivated offender and one personal or property target, and requires the absence of an effective guardian capable of preventing its

occurrence (Cohen and Felson, 1979; Jayamala, 2008). The theory, as originally conceptualized, addresses how the movement of motivated offenders throughout a city shapes spatial patterns of crime when this movement overlaps with places where suitable targets or victims congregate, and where there is no person or entity to properly guard the target. Targets of crime can be a person or an object, whose position in space or time puts it more at risk of criminal attacks (Badiora, 2014). Interestingly, capable guardians are usually neither police officers nor other officials of law enforcement. Although police do fall into the category of guardians, normal citizens more frequently play the role.

Routine activity theory can be used to explain why certain environments (such as transit stations) give rise to criminal behaviour. Transit stop brings together large numbers of people simultaneously through a city. This group could be composed in a couple of different ways. First, the group could be composed of all suitable targets. These targets are transported to transit stops where offenders can victimize them. Secondly, the group of travelers can be composed of both suitable targets and potential offenders. This development is most likely the veracity at peak times for transit use, when the traveler population is at its highest. Although, it is absolutely true that capable guardians are present within these groups identified above, one would argue however that at least one potential victim and offender is always present, but a guardian need not be.

Social disorganization theory on the other hand focuses on the place of crime occurrence instead of individual offenders, and tries to explain why some communities experience high levels of crime while others do not. Shaw and McKay (1942) described the characteristics of a socially disorganized neighborhood as including: high population density, population mobility (people constantly moving in and out of the neighborhood), poverty, family disruption (single parent households), and the physical decay of the buildings in the neighborhood. As an area begins to decay, it is thought that crime rates will rise due to the lack of social control. The theory suggests that people living in such areas will turn to criminality because they are denied access to basic life amenities and opportunities.

The thrust of social disorganization theory

therefore is that there are ecological factors responsible for high rates of crime in different communities, and these factors are linked to constantly elevated levels of high school dropouts, unemployment, deteriorating infrastructures, and single-parenthood. The theory has been used to explain street crime at the neighborhood level, but has not been used to explain organized crime, corporate crime, or deviant behaviour that takes place outside neighborhood settings. One major assumption of social disorganization theory is that crime is caused by social factors playing out in "bad places" rather than by "bad people". Social disorganization theory therefore supports the fact that an area's poverty rate positively correlates with the area's crime rate and, as legitimate access to good living decreases, crime increases. Shaw and McKay (1942) in their study in Chicago discovered that rates of crime were not evenly dispersed across time and space in the city. Instead, crime tended to be concentrated in particular areas of the city and remained relatively stable within different areas despite continual changes in the populations who lived in each area.

In conclusion, social disorganization theory differs from routine activities theory in many ways. First, routine activities theory is used to explain fluctuation in crime rates while social disorganization theory explains why crime rates are consistent and concentrated in certain areas. Second, social disorganization is a macro-level theory that places the source of crime on the characteristics of the neighborhood and not in explaining why an individual commits a crime (Akers and Sellers, 2004; Rice and Smith, 2002). Nonetheless, both are very relevant in explaining crime incidence in a particular place such as automobile stop stations.

Methods and findings

Te five Ibadan metropolitan local government areas formed the sampling frame of this study. These are included Ibadan north, Ibadan north east, Ibadan north west, Ibadan south east and Ibadan south west. Previous researches identified three major categories of areas which are distinct in social as well as physical attributes (Onokerhoraye and Omuta, 1986; Afon, 2001; Adigun, 2012). They are: high density zone; medium density zone, and low density zone. In modern urban centres, residential density is described in terms of floor area ratio and population.

In traditional urban centres, core, transitional and suburban areas represented the three zones highlighted above (Onibokun, 1972; Badiora, 2012).

According to Okewole (1977), the traditional core area is a pre-colonial development occupied by indigenous population and or the early settlers. This area is often found in the heart of the city (Onerkerhoraye and Omuta, 1985). It is usually with a density of over 300 persons per hectare (Coker, Awokola, Olomolaiye and Booth, 2007). The transitional/medium density area developed during the colonial era forms the next layer of development. This is usually with a population density of 100300 persons per hectare (Coker et al. 2007; Efe and Eyefia, 2014). The sub-urban/low density area could be pre and post-independence developments. Low-density district is usually with less than 100 persons per hectare (Coker, 2007; Efe and Eyefia, 2014). In urban centres of this nature, socioeconomic characteristics such as, level of education, occupation and income, and environmental quality are considered to vary inversely with density. These features were used in identifying the three areas.

Consequently, simple random sampling technique was used to select a bus station within the already stratified local government areas and the three residential zones. The selected bus stops were those in Oja-Oba, Dugbe and Iwo Road respectively. It must be stated that the selected bus stops are major intra and interstate bus stations where activities always occur.

The study explored crime records/statistics in and around the selected bus stops from the Oyo State Headquarters of the Nigerian Police, Eleyele, Ibadan, Nigeria for the period of 2013. This year was chosen because it marked the period the country had diversion to prepare for another election, which coincidentally bred insecurity and crime among political parties' opponents. This year also marked a downturn in the price of crude oil, causing alternative to survival among residents, and breeding social vices. For the purpose of this study, crime was grouped into seven (7) different types. These include; crime of assault, sexual harassment, aggression, crime of acquisition, stealth or pretense, public disorderliness and damage to properties (See Table 1). Data analysis was mainly descriptive.

From the summary presented in Table 1, a total of 1353 offenses were recorded in and around the selected bus stations in the year 2013. The crime with the highest incidence was public disorderliness. This accounted for 26.4% of the total offences and approximately twice that of sexual harassment (13.4%). While aggression accounted for 10.2 % of the total offences, the least recorded crime was damage to properties (09.5%). The proportion of crimes of aggression, acquisition and pretense was 15.2%, 12.8% and 12.6% respectively.

Locational analysis revealed that 43.2% of assault occurred at Oja-Oba bus station located in the high density zone of Ibadan. Similarly, 45.9% of sexual harassment and 43.5% of aggression occurred in the same area. On the contrary, the highest level of crime of acquisition (42.2%) was recorded at Iwo-Road bus station, located in the low density residential area of Ibadan, while stealth or pretense (45.0%) was mostly pronounced at Dugbe bus station, located in the medium density area of Ibadan. Other forms of crime such as public disorderliness and damage to properties accounted for 35.1%, 33.4% and 31.5% as well as 35.2%, 33.6% and 31.3% of crimes in Oja-Oba, Dugbe and Iwo Road respectively. In all, findings revealed that Oja-Oba and Dugbe bus stations accounted for 37.2% and 34.2% respectively while Iwo-Road station accounted for the remaining 28.6% of the total offences recorded. Differences in distribution of crime among the selected stop stations were found to be significant. The result of the analysis of variance ($F=57.701$ and $p=0.00$) confirmed this (See Table 3).

Summary of all crime types in and around selected bus stops for 2013 is presented in Table 2. On a daily basis, 30.6% of the total offences were recorded during the day while 58.9% occurred in the evening/night, and 10.5% in the mid-night. On weekly basis, offences that occurred during the weekdays were 45.3% while the weekends were 55.7%. Findings further revealed that 60.1% of the total offences occurred during the festive and yuletide seasons. Similarly, the result of the analysis of variance ($F=16.508$ and $p=0.00$) confirmed that differences in distribution of crime by time in selected stop stations were significant (See Table 4).

Table 1: Summary of crime statistics in and around selected bus stops (2013)

Crime Type	High Density (Oja-Oba)		Med. Density (Dugbe)		Low Density (Iwo-Road)		Total (Ibadan)	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Crime of Assault	89	43.2	66	32.0	51	24.8	206	15.2
Sexual Harassment	83	45.9	64	35.4	34	18.8	181	13.4
Crime of aggression	60	43.5	43	31.2	35	25.4	138	10.2
Crime of acquisition	46	26.6	54	31.2	73			
Stealth or Pretense	54	31.6	77	45.0	40	42.2	173	12.8
Public disorderliness	125	35.1	119	33.4	112	23.4	171	12.6
Damage to properties	45	35.2	43	33.6	40	31.5	356	26.4
Total/Density (%)	504	37.2	463	34.2	388	28.6	1353	100.0

Note:

Crime of assault : Grievous harm/wounding, assault occasioning harm, assault, intimidation, intentional insult and deformation of character.

Sexual Harassment: Rape, attempted rape, indecent assault, enticing and defilement.

Crime of aggression: Murder, attempted murder, manslaughter, kidnapping, child stealing, abduction, homicide, suicide, attempted suicide, slave dealing, threatening violence, and other offenses against persons.

Crime of acquisition: Armed robbery, robbery, car snatching, theft and other stealing, house breaking, store/shop breaking, school breaking, forcible entry, burglary, gambling, demanding with menace, suspected stolen vehicle, procurement of minor gift, other property related offenses, foreign exchange and cybercrime.

Stealth or pretense: False pretense, mischief, cheating, unlawful possession, receiving stolen property and being in possession.

Public disorderliness: Breach of peace, affray, public unrest, riot, inciting disturbance, obstruction, trespass, conspiracy/breach of trust.

Damage to properties: Arson, destruction of property, fire incidence.

Source: Crime figures (2013); grouped and summarized by the authors (2015)

Table 2: Summary of all crime type in and around selected bus stops (2013) by time of occurrence

	Time of Occurrence	Percent (%)
Total Number of cases = 1353	Day time	30.6
	Evening-night time	58.9
	Mid-night time	10.5
	Total	100.0
	Weekdays	45.3
	Weekends	55.7
	Total	100.0
	Festive	39.9
	Non-festive	60.1
	Total	100.0

Note:

Daytime (4.59a.m to 6.59p.m); **Evening-night time** (7.00p.m to 11:59p.m); **Mid-night time** (12.00 am to 5.00a.m), **Weekdays** (Monday, Tuesday, Wednesday and Thursday); **Weekends** (Friday, Saturday and Sunday). **Festive periods** (Christmas season and other festivities).

Source: Crime figures (2013); Grouped and summarized by the authors (2015)

Table 3: ANOVA Test of differences in distribution of crime among the selected stop stations

Sources of variation	Sum of squares	df	Mean square	F	Sig.
Between groups	265337.186	2	132668.593	56.701	.000
Within groups	748732.157	320	2339.788		
Total	1014069.343	322			

Table 4: ANOVA Test of differences in distribution of crime by time of occurrence

Sources of variation	Sum of squares	df	Mean square	F	Sig.
Between groups	958.950	2	479.475	16.589	.000
Within groups	9249.105	320	28.903		
Total	10208.056	322			

Discussion

As discovered in this study, researchers have shown that crime often manifests in clusters or hot spots over space (Shaw and McKay 1942; Brantingham and Brantingham, 1995; Afon, 2001; Phillip, 2008; Adigun, 2012 and Badiora, 2014) and time (Agbola, 1997; Jayamala, 2008; Badiora, Fadoyin and Omisore, 2013). The results of this study are therefore in line with some aspects of the ecological model. While crimes of assault, sexual harassment and aggression reduce as the distance from bus stations at the core (Oja-Oba) increases, crime of acquisition showed the opposite trend; that is, it increased with the distance from the core to the suburb stop stations (Iwo Road). However, other forms of crime such as public disorderliness and damage to property were evenly distributed across bus stations in the core, transition and suburban areas.

Second, the results point out that evening/night periods and weekends are more prone to crime and similarly, seasonal variety shows the clear patterns that follow the schedule of festive activities. The disproportionately high crime in public transit stations in the evening is because criminals hide in darkness to perpetuate their nefarious acts. This is possible because most parks in Ibadan do not enjoy electricity supply in the evening and night, and unfortunately, activities at the stations run till late hours in the night. In the festive seasons especially, crimes are more concentrated around transport nodes which often may be a by-product of travel congestion on the roads. Crime hot spots will therefore tend to appear at this time because of the congestion or high concentration of activities and travels. At most other times (non-festive periods), the concentration does not occur because the congestion levels are lower.

Findings revealed that the highest level of crime was recorded at bus stations located in the city centre or high density area (Oja-Oba). Previous studies had confirmed traditional core/high density areas in Nigeria as hotspots of crime (Afon, 2001; Adigun, 2012; Badiora, 2012). Consequently, on bus stations, there is the possibility of 'neighbourhood composition effects'. This is evident, as the bus station closest to or located within the high density area was the one with the highest proportion of crime incidents. This also gives an indication that there is something about a place that sustains crime.

To explain this, Stark (1987) offered certain propositions for forming a theory of dangerous places. First, the higher the density, the greater the association between those most and least disposed to crime, and second, the greater the density, the higher the level of moral cynicism. These explain the pattern developed in this study.

Corroborating the propositions above, the crime pattern established in this study may as well be attributed to the fact that suburbs/low density areas cope with social problems and are sensitive to crime and other social vices because of underlying socio-economic factors. Unlike the core/high density areas (Shaw and McKay, 1942; Wilcox *et al.*, 2003). This has been conceptualized in the social disorganization theory. The philosophy of this theory is that in principle, a neighbourhood suffering from social problems also lacks the power to exercise formal and informal social control. The lack of social control in these areas makes them indirectly allow criminal activities and puts no hold on the actions of offenders residing there.

These areas are typically identified with high density neighbourhood compositions and in some cases transition with low income, immigrant population, low socio-economic status, high ethnic heterogeneity and high migration patterns, creating an unstable housing market (Shaw & McKay, 1942). On the contrary, a socially organized neighbourhood has the power to exercise formal and informal social control. The surplus social control in these areas makes them to prohibit criminal activities and put a check to the actions of crooks residing there. These areas are typically identified with neighbourhood compositions of low density, high income and high socio-economic status, and less relocation patterns, thereby creating a stable housing market.

Conclusions and recommendation

This study submits that crime clustering in and around bus stations follow a pattern related to the city's centre, zone of transition and suburban problems. The results of this study are therefore in line with the ecological model of crime, by demonstrating that, first, there are notable geographical variations in the patterns of crime locations and that these variations differ with regard to type of crime. For instance, while the occurrence of offences against a person (assault, sexual harassment and crime of aggression) in the core of

Ibadan Nigeria reduces as the distance from the core increases, offences against property (crime of acquisition) showed the opposite trend; it increased as the distance from the core to the suburb increased. However, offences such as public disorderliness and damage to properties were evenly distributed across the core, transition and suburban areas. It is also important to notice that crime is not stable over time but shows different distributions proportionally at different times.

Based on these findings, crime prevention units and police intervention should deploy resources on the hotspots pointed out at each different time span with respect to crime types. Adequate patrol should be on the highways and at stop stations. However, where the risk is high and widely dispersed within the neighbourhood, the root causes of crime rather than their symptoms must be attacked. Poverty, lack of jobs and resource control, among others must be ameliorated within the neighbourhood before crimes around bus stations can be reduced. It should be noted that where poverty is wide spread and transit crime occurs anywhere, problem-oriented policing may be of little use in crime reduction.

In terms of environmental design, the security of transit passengers should extend from the bus stop or station platform (place) to the public environment that surrounds the transit stop (space), including the routes. Good visibility and pedestrian presence are important in reducing crime. Every effort should be made to site bus stops away from desolate spaces, empty lots and vacant buildings, and in front of establishments that offer opportunities for natural surveillance. The placement of bus stops near undesirable establishments such as liquor

stores and bars, and facilities that favor many crime attracting transactions should be avoided. In addition, entry and exit routes into stations should be limited.

Since most of the crime occurred in the night time, it would be appropriate to install good lighting on the street, particularly for problem areas such as dark spots; put signs in place for control and consequences for violation of rules. A more directly effective crime prevention strategy would be to increase control through guardianship, cameras and presence of informal guardians. Because crime tends to be concentrated disproportionately in specific dangerous areas, a regular security audit by transit authorities will reveal the hot spots of crime at the bus stops or transit stations. This audit could be used to guide a targeted deployment of security personnel to the most dangerous spots during the most dangerous times. For bus stops, specifically, patrolling by police could reduce opportunities for crime.

Using the example of a building with a broken window that remains unrepaired, Wilson & Kelling (1982) suggested that a society or section of society that appears to be lawless will itself breed lawlessness. Therefore, the upkeep, good maintenance, and cleanliness of the transit stations are of paramount importance for the safety of commuters. Incidents of vandalism that plague transit systems can be reduced through the use of vandal-resistant materials. Transport as well as city agencies should strive to keep the environment free of litter, thus sending the message that an authority other than the criminal is in control of the transit stop and its environment.

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