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EVALUATION OF TRANSIT CRIMES IN PARTS OF LAGOS STATE, NIGERIA

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Abstract
Transit crimes are acts of force, negligence or fraud associated with transportation. Urban centres in developing countries are known for extensive and often complex transport systems. The transport systems are also characterised by largely inefficient security system that make many urban dwellers vulnerable to attacks and theft. Consequently, understanding patterns of transit crimes has become a sustainable ingredient for urban planners. This study therefore examined the spatial and temporal distribution of dominant transit crimes, and factors responsible for the crimes in selected crime-prone areas of Lagos State in Nigeria. Data used included a five (2012-2017) years daily crime records in the study area and responses of systematically selected 372 residents, road users and business owners around purposively selected major bus stops in Ibeju-Lekki and Somolu local government areas in Lagos State. Results showed that the most prominent transit crimes were those initiated by street urchins and touting activities (84.3% and 84.7%, respectively at Somolu and Ibeju-Lekki). These activities were mainly fighting, open drug/marijuana use, phone and bag snatching and pick-pocketing (> 60% at each location). Criminal activities were also more pronounced in the nighttime and at dawn than other times of the day, and the nature of the crimes often vary with locations. The study recommended better police facilities and policing enhancement with security warning alerts in the study areas.

Keywords: Transit crimes; Transport infrastructure; Touting activities; Motor parks; Urban policing

Introduction

Transportation plays a crucial role in urban life and development with road transport forming the most important means of transportation in most countries offering rapid, reliable, and convenient mobility on demand for the ever-growing population, particularly in developing countries. People move between home, work and other activity locations daily using different transport modes (Ceccato, et al, 2011), with different levels of vulnerability to various transit crimes. Transit crimes cover a bewildering variety of offences ranging from pick-pocketing, harassment, intimidation, ticket touting, fare hiking, fighting or rioting, vandalism, phone snatching and mugging, 'one-chance (abduction), car snatching, drive-by shooting and drug/substance abuse (Vilalta, 2011). Transit crimes are acts of force and other atrocities that are associated with or induced by transportation (Andel, 1989; Braithwaite, 1989; Siegmunt, 2016) terminal, motor-park, rail station and other transport infrastructure that are locations or contact points (where people come together to either embark on a journey or disembark when they arrive from their destination). The rate of transit crime incidence particularly within and around transport infrastructure cannot be separated from the pattern of travel and passenger travel satisfaction (Odufuwa, et al, 2012).

Safety, being one of the top concerns (after physiological needs) in the hierarchy of human needs in Maslow's Hierarchy of Needs theory (Maslow, 1943), is a concern for all humans, and as such, exposure to transit crimes has been a major concern for researchers, policymakers and people, worldwide

(Uittenbogaard, et al, 2012). Recently, studies have shown that transit crime is increasingly becoming of serious concern and a significant issue of discussion for transport planners and managers (Cozens et al, 2003; Levine, et al, 1986). Newton (2004) among other researchers argued that little or no attention has been given to incidents of transit crime in public transport facilities, particularly in comparison to the occurrence of such incidents outside of the public transport infrastructure, despite its rapid growth in many urban areas.

In general, transport induced crimes are difficult to categorize as all crimes are directly or indirectly related to transport (motorized and non-motorized). Tompson, et al (2010) opined that transit crime is unevenly distributed among victims, offenders, and places. The concentration of transit crime is relative to spatial characteristics reflecting the existence and attractiveness of crime opportunities in locations where offenders and victims interact.

Research Problem

Transit crime is a major aspect of the quality of life, yet it is often given little or no attention in most academic researches (Vilalta, 2011). The lack of research effort expended in establishing and categorizing transit crimes, as well as the circumstances and conditions under which transit crimes occur in and around transport infrastructure calls for the attention given the continual increase in these crimes (Pease, 1999). A peak period (rush hour) increase in ridership results in overcrowding creating opportunities for a crime that is unique to environments with transport infrastructure (Solymosi, et al, 2015). Contrary to conventional wisdom, the occurrence of transit crime is rarely accidental.

The occurrence of transit crimes varies both in space and time (location, hour, day, or month). According to Felson and Poulson (2003), crime varies greatly by the hour of the day more than by any other variable. There is empirical evidence that transit crime offenders favour committing the crime at similar times of the day (Tompson, et al, 2010). Different periods of the day are associated with different spatial clusters of transit crimes and these are generated by the transient population flux through the day. Routine activities vary by day, as do transit crime rates and crime risks and these, in turn, reflect the shift in transit crime during each hour of the day (Tompson, et al, 2010).

The level of transit crimes in Ibeju-Lekki and Somolu local government areas have been attributed to the development and expansion of transport infrastructure in these areas. Types and levels of transit crimes within these areas vary; unfortunately, the incidents and nature of these transit crimes are poorly understood.

This study, therefore, examined transit crimes in parts of Lagos State (Ibeju-Lekki and Somolu LGAs) South Western region in Nigeria. The specific objectives are to determine the dominant transit crimes in Ibeju-Lekki and Somolu local government areas of Lagos State, Nigeria and examine the temporal distribution of dominant transit crimes in these areas. It also evaluated the factors that influence the level/rate of transit crimes within the areas.

Study Area

The study area is Ibeju-Lekki in the Epe Division of Lagos State, one of the fastest-growing local government areas in Lagos State. Ibeju Lekki is located at approximately between latitude 4°15'N to 4°17'N and longitude 13°15'E to 13°20'E. According to the National Population Commission of Nigeria and the National Bureau of Statistics websites, the population of the study area as at 2016 was 162,200, with a total land area of about 455 km^2. Somolu local government area, on the other hand, is located on the mainland and eastern part of Lagos State. The local government has a total landmass of about 14.6 km^2, with a total population of 473,590 in 2011 (NPC, 2012).

The basic economic activities within Ibeju-Lekki local government area are mainly fishing. With the advent of urbanization and rapid economic development within Lagos State, modern economic activities have almost overtaken these primary economic activities as the commercial Hub of Lagos State tends to be shifting towards the area with many developmental projects. The Lekki Free Zone (LFZ), along with a Petrochemical and Power Plant, Power Oil Production Plant, Dangote Refinery, Dangote Fertilizer Plant, Lekki Deep Seaport, Lekki International Airport, Pan-Atlantic University, and other industries, as well as numerous residential estates, are some of the ground-breaking projects which are ongoing within the local government area (Information Department, Ibeju-Lekki LGA Secretariat, 2018). Somolu local government area on the other hand is mostly regarded as the printer's 'Haven'. The local government area has the largest

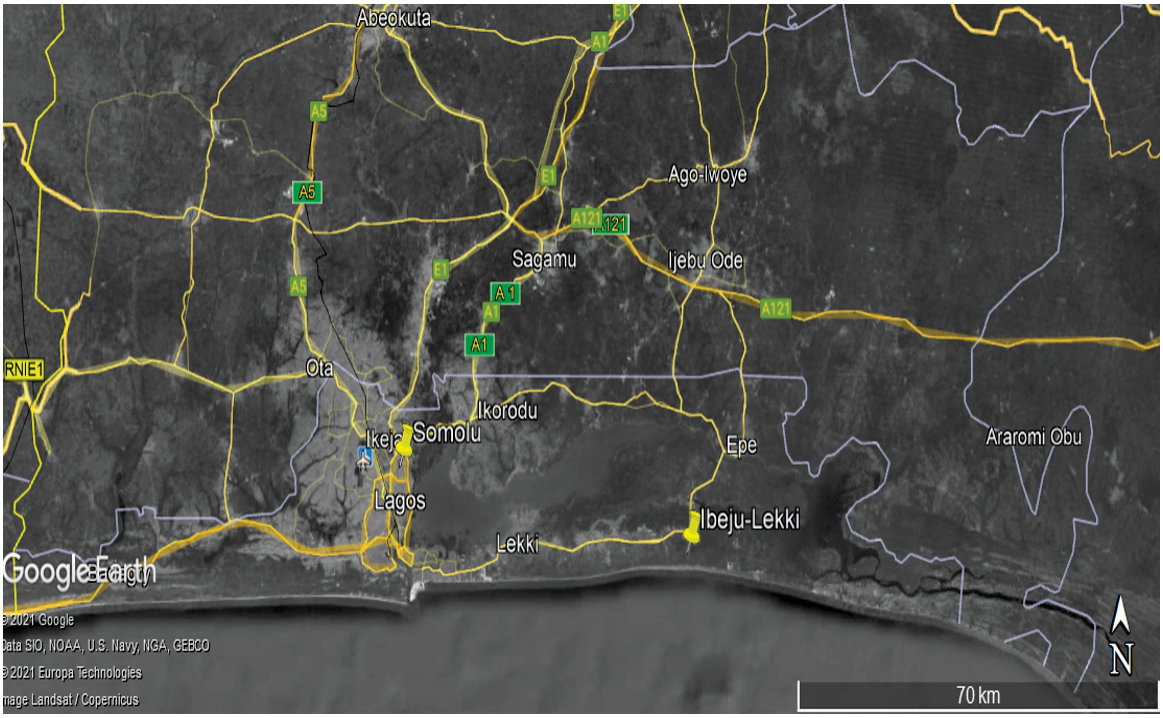

Figure 1: Map of Lagos State showing Ibeju-Lekki and Somolu Local Government Areas.

concentration of printers in Nigeria as a survey conducted within the area shows that an average of two printers operates in one building. Besides printing, markets of various sizes are scattered at various locations within the local government area. Somolu local government area has no major industry except for large printing firms (Information Department, Somolu LGA Secretariat 2018).

Materials and Methods

The data used for the study included crime records which were obtained from the Department of Research and Planning, Lagos State Police Command, Ikeja, Lagos State; Area H, Nigeria Police Force Ogudu Area Command; Area J, Nigeria Police Force Elemoro Area Command; National Bureau of Statistics; Information Department Office, Somolu Local Government Area Secretariat; and Information Department, Ibeju-Lekki Local Government Area Secretariat. The primary data for this study were collected through extensive interviews and the administration of the questionnaire. The questionnaire used for this study included both closed and open-ended questions (Appendix) which were designed to solicit relevant information on the socio-economic characteristics of respondents, travel characteristics and transport modes used; dominant transit crimes, perception on transit crimes, spatio-temporal variations in transit crimes rate as well as the factors influencing transit crimes.

A multistage sampling procedure was used for collecting primary data. The first stage involved the purposeful selection of all the major bus stops using the information obtained from the Information Department of the 2 local government areas (Ibeju-Lekki and Somolu) which form the study area. The second stage involved the selection of all the major bus stops in the study area; 16 in Ibeju-Lekki and 15 in Somolu (Table 1). The third stage involved the arbitrary selection of 12 respondents around the bus stops. Due to the nature of this study which deals more with personal experiences and perceptions, rather than documented facts and figures, accidental or purposeful sampling technique was used to select 12 respondents from each of the bus stops since there is no available data on the exact number of commuters or business operators at these bus stops. A total of 372 respondents; 192 in the Ibeju-Lekki local government area, and 180 in the Somolu local government area were interviewed.

The level and rate of transit crimes in the study area were determined based on individual experiences and perceptions.

Table 1: List of major bus stops in the study area

S/N	Ibeju-Lekki LGA	Somolu LGA
1	Abijo	Abiodun
2	Awoyaya	Apata
3	Lakowe	Chemist
4	Bogije	Fadeyi
5	Okunraye	Folagoro
6	Igondo	Grammar School
7	Eleko Junction	Ilaje
8	Eleko Inside	Lady Lack
9	Ibeju	Obanikoro
10	Magbon	Oja
11	Onosa	Oke-suna
12	Akodo	Onipanu
13	Orimedu	Pako
14	Idasho	Pedro
15	Lekki	Roundabout
16	Tiye	-

Data analysis

Both descriptive and inferential statistics were employed in data analyses. The simple statistics of descriptive distribution and tabulation were employed to examine the socio-economic and mobility characteristics of respondents; the dominant transit crimes and the spatio-temporal distribution of transit crimes within the study area. The influence of the presence of transport infrastructure on transit crime rates was evaluated using a non-parametric test for nominal data. Cross-tabulation was used to determine the relationship between the presence of transport infrastructure and the rate of transit crimes. Epidemiological Data (EpiData) version 3.1, a free data capture software was used for data entry, while Predictive Analytics Software (PASW) formerly known as Statistical Package for Social Sciences (SPSS) version 21 was used for data analyses.

Results

The demographic, social and economic characteristics of the respondents sampled in the study area are presented in Table 2. About 55.2% of the respondents in Ibeju-Lekki LGA were male and the other 44.8% were female while about 56% of the respondents in Somolu LGA were male and the other 44% were female. The majority (37.2%) of the respondents in Ibeju-Lekki LGA were between 26 and 35 years old and single (49.7%) while in Somolu LGA, the majority (35.5%) were also between 26 and 35 years old and single (47.6%). About 80.3% of

Table 2: Socio-economic characteristics of the sampled population

Attributes	Options	Frequency		Per cent	
		Ibeju-Lekki	Somolu	Ibeju-Lekki	Somolu
Gender	Male	101	93	55.2	56
	Female	82	73	44.8	44
Age (Years)	15-25	52	51	28.4	30.7
	26-35	68	59	37.2	35.5
	36-45	49	46	26.8	27.7
	46-55	7	4	3.8	2.4
	Above 56	7	6	3.8	3.6
Marital Status	Single	91	79	49.7	47.6
	Married	87	58	47.5	34.9
	Widow	1	10	0.5	6.0
	Widower	3	5	1.6	3.0
	Divorced	0	3	0	1.8
	Separated	1	11	0.5	6.6
Educational Qualification	Primary	0	3	0	47.6
	Secondary	29	47	15.8	34.9
	Tertiary	147	110	80.3	66.3
	Vocational School	7	6	3.8	3.0
Employment Type	Civil/Public Servant	44	55	24.0	33.1
	Self-employed	113	74	61.7	44.6
	Unemployed	26	37	14.2	22.3
Transport means Ownership	**Yes**	**66**	**87**	**36.1**	**53.4**

respondents in Ibeju- Lekki LGA had tertiary education and about 66.3% of respondents in Somolu LGA had tertiary education. About 36.1% of the respondents in Ibeju-Lekki LGA own a means of transportation while about 53.4% of the respondents in Somolu LGA own a means of transportation.

Dominant transit crimes

The dominant transit crimes in the study area are shown in Figure 3. The most common among all the transit crimes in the study area is fighting by touts. About 84.7% of the respondents in Ibeju- Lekki LGA and about 84.3% of the respondents in Somolu LGA believed that fighting by touts is the dominant transit crime in the area. Pick-pocketing (78.7%); phone snatching (71.6%); bag snatching (53.6%) and drug/substance abuse (51.4%) among other transit crimes were among the dominant crimes in Ibeju-Lekki LGA while in Somolu LGA, drug/substance abuse (66.9%); phone snatching (52.4%); armed robbery (47%); property vandalization (45.2%) and murder/assassination (38%) were rated among dominant transit crimes observed within and around transport infrastructures in the area.

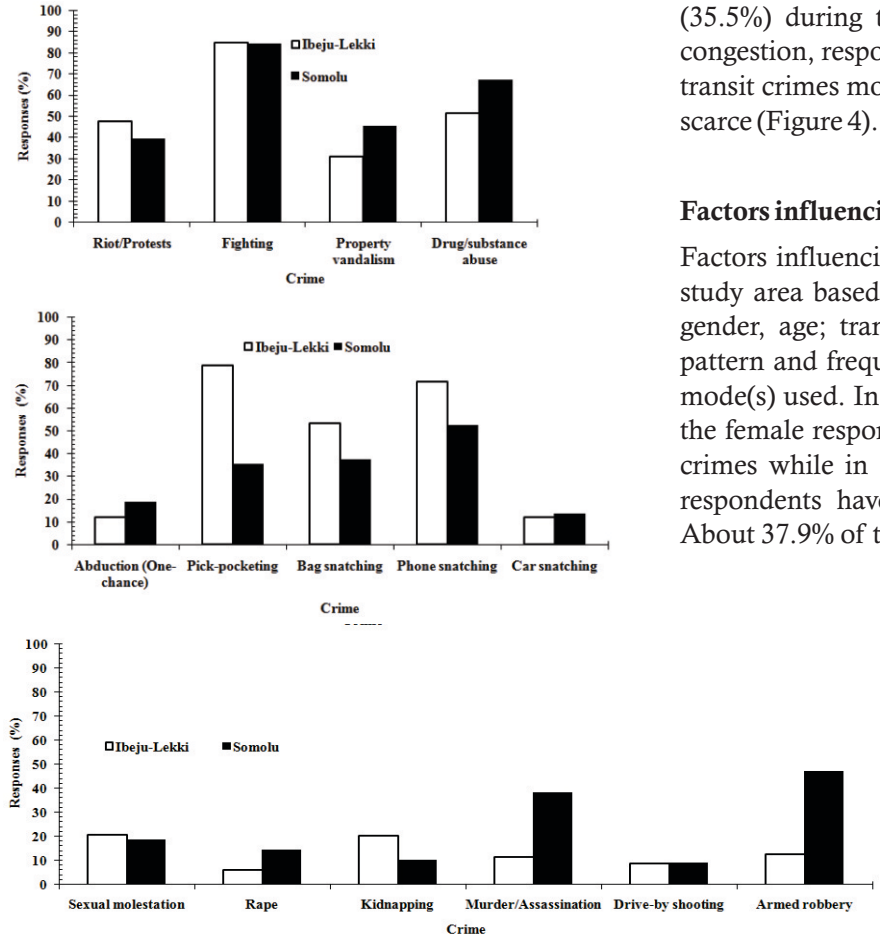

Figure 3: Distribution of dominant transit crimes in the study area

Frequency of victimization

The frequency of falling victim to transit crime offenders by respondents in the study area is presented in Table 3. Most (56.6%) of the respondents in Somolu LGA, and about 38.8% of the respondents in Ibeju-Lekki LGA have been victims of one or more transit crimes. About 33.3% of the respondents in Somolu LGA have been victims of phone snatching while another 4.2% have been victims of drive-by shootings and sexual molestation. In Ibeju-Lekki LGA, about 28.9% of respondents have been victims of phone snatching while another 2.2% of respondents have been victims of rape.

Temporal distribution of transit crimes and factors responsible for them

Temporal distribution of transit crimes in the study area indicates that within Ibeju-Lekki LGA, transit crimes occurs most (42.6%) at any time of the day and less (6%) whenever it rains while in Somolu LGA, transit crimes also occur most (54.8%) at any time of the day and less (4.8%) whenever it rains. A variation however exists in the temporal distribution of transit crimes in the study area. While respondents in Ibeju-Lekki LGA experience more transit crimes (35.5%) during the evenings when there is traffic congestion, respondents at Somolu LGA experience transit crimes more (20.5%) at night when buses are scarce (Figure 4).

Factors influencing transit crimes

Factors influencing the rate of transit crimes in the study area based on individual perceptions include gender, age; transport means ownership, mobility pattern and frequency of travel as well as transport mode(s) used. In Ibeju-Lekki LGA, about 33.3% of the female respondents have been victims of transit crimes while in Somolu LGA, 44% of the female respondents have been victims of transit crimes. About 37.9% of the respondents between the ages of

Table 3: Frequency of falling victim to transit crime offenders

Transit Crimes	Number of time(s)		Per cent	
	Ibeju-Lekki	Somolu	Ibeju-Lekki	Somolu
Armed robbery	5	11	11.1	15.3
Kidnapping	5	0	11.1	0
Drive-by shooting	0	3	0	4.2
Abduction (One-chance)	0	6	0	8.3
Pick-pocketing	8	7	17.8	9.7
Bag snatching	9	20	20	27.8
Phone snatching	13	24	28.9	33.3
Car snatching	0	4	0	5.6
Riot/Protests	0	10	0	13.9
Fighting	9	11	20	15.3
Property vandalism	9	10	20	13.9
Sexual molestation	6	3	13.3	4.2
Rape	**1**	**8**	**2.2**	**11.1**

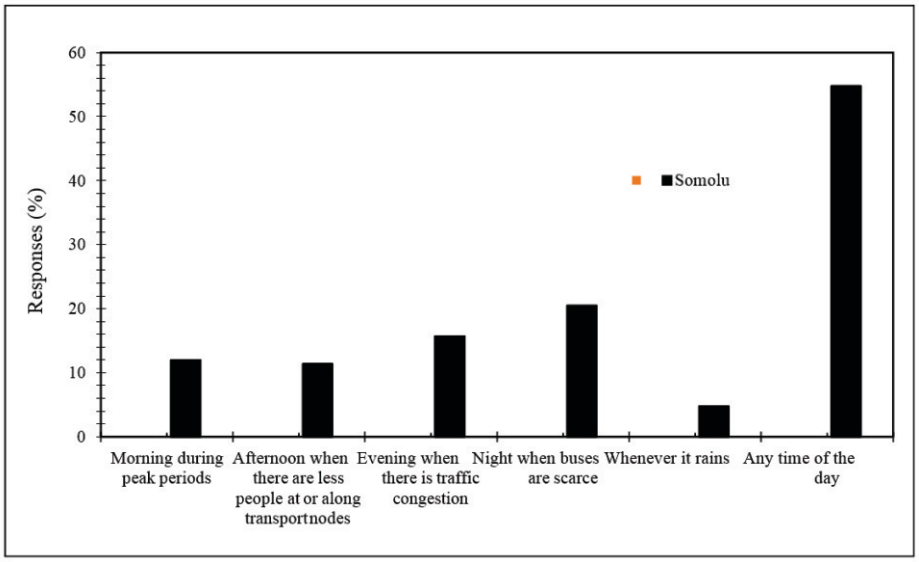

Figure 4: Temporal distribution of transit crimes in the study area

15-25 years in Ibeju-Lekki have fallen victim to transit crime offenders while about 38.6% of respondents within the same age bracket in Somolu LGA have also been victims of transit crimes. In Ibeju-Lekki LGA, about 75% of respondents who do not own any means of transport have been victims of transit crime while in Somolu LGA, about 54.5% of respondents who owned means of transport have been victims of transit crimes. Most (75%) of respondents who own means of transport in Ibeju-Lekki have been victims of transit crimes. The mobility pattern and frequency of travelling along a particular transport node/route also influences the rate of transit crimes. The majority (69%) of the respondents in Ibeju-Lekki LGA who travel along a particular transport route every day have been victims of transit crimes. Similarly, in Somolu LGA, the majority (63.6%) of the respondents who travel along the same transport route using the same transport node(s) every day have been victims of transit crimes. Most (50%) of the respondents who always use the same transport mode(s) in Ibeju- Lekki LGA have fallen victim to transit crime offenders while in Somolu LGA, about 40.9% of the respondents who always use the same transport mode(s) have been victims of transit crimes.

Table 4: Factors influencing the rate of transit crimes

Factors	Respondents' Attributes	Per cent	
		Ibeju-Lekki	Somolu
Gender	Male	67	56
	Female	33	44
Age	15-25	37.9	38.6
	26-35	37.2	50
	36-45	26.8	50
	46-55	12.1	4.4
	Above 56	5.2	7.7
Transport means ownership	No	75	54.5
	Yes	25	35.5
Frequency of transport node/route usage	Every other day	-	15.4
	Once a week	-	25
	2-4 times a week	-	6.8
	5-6 times a week	33.3	29.5
Frequency of transport mode(s) usage	Every day	69	63.6
	Occasionally	17	25
	Often	15.8	50
	Very often	50	40.9
	Always	66.7	55.9

Discussion

This study aimed at examining dominant transit crimes, the temporal distribution of transit crimes and the factors influencing the rate of transit crimes in the study area. Gender, age, transport means ownership and frequency of transport route and mode usage were the dominant factors influencing the rate of transit crimes. Most (53.4%) of the respondents in Somolu LGA owned a means of transport while only 36.1% of respondents in Ibeju-Lekki LGA owned a means of transport. In terms of the temporal distribution of transit crimes, the results of this study revealed that variations exist in the temporal distribution of transit crimes in the study area. Transit crimes occur most (42.6%) at any time of the day in Ibeju-Lekki LGA just like in Somolu LGA (54.8%); during the evenings when there is traffic congestion (35.5%) in Ibeju- Lekki LGA and at night when buses are scarce (20.5%) in Somolu LGA.

This study further revealed that gender, age, transport means ownership, mobility pattern and frequency of travel as well as transport mode(s) usage all influenced the level of transit crimes within the study area. In Ibeju-Lekki LGA, 33.3% of the female respondents have been victims of transit crimes while in Somolu LGA, 44% of the female respondents have been victims of transit crimes. In Ibeju-Lekki LGA, 75% of respondents who do not own any means of transport have been victims of transit crime while in Somolu LGA, 54.5% of respondents who owned means of transport have been victims of transit crimes. Respondents' opinion on the presence of transport infrastructure being responsible for transit crimes within the study area show that 47.8% of the respondents in Ibeju-Lekki LGA thought that the presence of bus stops, motor parks and terminals were responsible for the high rate of transit crimes and in Somolu LGA, 27.3% of the respondents believed that the presence of bus stops, motor parks and terminals were responsible for the high level of transit crimes within the area.

Conclusion

Mobility is the crux of human existence and transportation is an important influencer of mobility. Transportation plays a crucial role in urban life and development with road transport forming the most important means of transportation offering rapid, reliable, and convenient mobility on demand for the ever-growing population. Transit crimes are categorized as transport induced crimes and refer to all crimes committed within and around transport infrastructure which serve as contact points where people come together to either embark on a journey or disembark when they arrive from their destination. Consequently, the study recommends that the Nigeria Police as well as other security agencies should work collaboratively to ensure that transit crimes are reduced to their barest minimum if not curbed. Police checkpoints should be placed within or close to transport infrastructure and where this is not obtainable, a constant patrol of major bus stops by the Nigeria Police and/or other security agencies should be adopted. Furthermore, the construction of modern transport infrastructure with adequate facilities should be embarked upon while appropriate authorities and/or bodies should be appointed to manage and maintain these infrastructures.

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