

# Assessment of the Safety and Security of Commercial Motorcycle Operations in Akure, Ondo State, Nigeria

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## ABSTRACT

Commercial motorcycles are seen to constitute a serious threat to the security, lives, and properties of citizens. Their operators are said to engage in many criminal acts, causing accidents on roads, and the death of many innocent citizens, thus neglecting its purpose of conveying people and goods which is its transport function in society. This study, therefore, examines the level of safety and security associated with the operation of commercial motorcycles in Akure to engender policy responses that could enhance the safety of the operators of commercial motorcycles. Questionnaires and data from the Federal Road Safety Commission were used to collect the required data. Questionnaires were administered to the operators of commercial motorcycles in the study area. A total of 220 Motorcycle operators were sampled. Descriptive statistics were employed in the data analysis. Findings also revealed that the unemployment situation in the state has led many (85.1%) people, particularly the youth; into the commercial motorcycle operation in the city. As a result of that, many of them (46.2%) did not engage in formal training which has resulted in a high rate of commercial motorcycle crashes in the city, which have claimed many lives and rendered some impotent. Other problems associated with motorcycles include speeding, a leading problem in the area coupled with the fact that some operators now use motorcycles to perpetuate grievous crimes. To have safe, efficient public transportation, the government should create more job opportunities for people, upgrade the existing three-wheel cycles and improve on the operational efficiencies of city taxies, imposing sanctions to enforce strict compliance among okada riders which will go long way in reducing road accidents, crimes and thus reducing the influx of commercial motorcycles.

**Keywords:** Commercial motorcycle, Safety, Security, Operator, Okada (motorcycle)

## INTRODUCTION

Motorcyclists constitute an important group of road users globally. In many low-income and middle-income countries (LMIC), motorcycles are an increasingly common means of transport (Johnson & Adebayo, 2011). In recent times, commercial motorcycles commonly called *boda-boda* (border-to-border) in Kenya and Uganda (Barber, Rettie, Krasnolucka-Hickman, Divall, & Porter, 2019); bicycle-taxi in SubSaharan Africa; *kèkè Kannan* or taxi Kannan or Zemidjan (take me fast. A rapid door-to-door transport) in Benin; *piki-piki* in Swahili; *Vélo-taxi* in Senegal; Bendskin in Cameroon; *Kabu-Kabu* in Niger (Diaz, Plat, Pochet, 2007); *Oléyia* in Togo (Howe, 2003); and *Okada* in local Nigerian parlance for intra-city transportation (Olasupo, 2018) are believed to constitute a serious threat to the security, lives and properties of residents. Motorcyclists are among the most vulnerable road users and represent an important group to target for reducing road traffic injuries. Motorcyclists have an especially poor safety record when compared to other road user groups (Johnson & Adebayo, 2011).

Despite the good service offered by motorcyclists (such as swiftly transporting people across town, reaching corners inaccessible to taxis and buses at a relatively cheaper rate), and the significant relief motorcycles have brought to transportation and employment challenges (reducing economic losses due to traffic and minimizing lateness to work), their operations are plagued by numerous problems. They have been blamed for causing accidents on the streets, the deaths of innocent citizens due to careless riding, engaging in fights with drivers,

and burning vehicles or other property in the aftermath of accidents. Additionally, they are accused of taking the law into their own hands (This Day, Friday, April 17, 2009).

Due to riders' inadequate knowledge and consciousness of the value of safe riding and the usefulness of personal protective equipment (PPE), commercial motorcycle transportation is one of the main causes of road traffic accidents in various cities. (Wilfred & Nicholas, 2017). Recklessness and non-adherence to traffic regulations are not the only problems with commercial motorcyclists; (Akogun, 2008) observed that many of them have been accused of indulging in criminal activities such as murder, theft, handbag and mobile phone snatching, rape, kidnapping/abduction, and ritual killings. Additionally, Ofuonyeadi (2008), Pius (2009), and Okache (2010) noted that on a daily basis, commercial motorcyclists are accused of these crimes.

The increase in crime with the use of motorcycles has created fear in the minds of commuters because it has become difficult to differentiate between genuine commercial motorcycle operators and criminals (Ukwayi, Ogaboh, Michael, 2013). The prevalence of economic crises and the unhealthy structural adjustment policies introduced in Nigeria aggravated the problem of the urban poor criminals (Ukwayi, Ogaboh, Michael, 2013; Ghani, 2017). This was manifested in the drastic job loss and mass retrenchment among others (Udomi, 2002; Madunago, 2004; Chikezie, 2006; Sule, 2007). It became very expensive to import enough vehicles in enough quantity to cope with the rising demand for means of transportation. The few available retail transporters become elitist in providing transport services by insisting on "drop" rather than the mass carriage of passengers (Ukwayi, Ogaboh, Michael, 2013). Some of them refused to drop passengers at their designation. Commercial motorcyclists, therefore, took over the services of dropping passengers at desired destinations (Nsa, 2007; Ugboma, 2004). Unemployed graduates and highly skilled workers who were retrenched became commercial motorcyclists (Ukwayi, Ogaboh, Michael, 2013).

The contribution of commercial motorcyclists to social life and poverty reduction cannot be overlooked. They are one of the catalysts for socioeconomic development. The failure of rail transport and the scarcity of taxis and buses are major problem and it has been eased by commercial motorcycles. New job seekers are attracted by the low cost of purchase and operation/maintenance of commercial motorcycles as it helps to reduce unemployment, particularly among universities graduate (Oginni, Ugboko, Adewole, 2007). The proliferation of motorcycles in Nigeria has introduced significant challenges. The widespread adoption of motorcycles for urban transportation across Nigerian cities has notably impacted the incidence of road traffic accidents. Over the last two decades, the foremost challenges confronting Nigeria and its urban centers in their pursuit of development have centered on issues of mobility and accessibility (Afolabi & Gbadamosi, 2017). The setting up of the Federal Road Safety Corps seems to have focused mainly on motor vehicle safety ignoring completely the mode of operation of commercial motorcycle operators especially as it affects the safety and the environment (Afolabi & Gbadamosi, 2017). Although the risk of being involved in a road accident is over eight times as great for a motorcycle as for a car, a motorcyclist is 24 times as likely to be killed or seriously injured per kilometer traveled than a car driver (Kolan *et al*, 2020). In Nigeria, the prevalence of motorcycle injuries ranging from 12.8 - 60 percent has been reported in different studies (Danjibo, Olasupo, & Ojo, 2019, Ogunmodede *et al*, 2012). Hence, the need arises to ensure the security and safety of motorcycle operators while also keeping them safe, healthy, and employed.

Therefore, this study examines the socio-economic characteristic of operators of commercial motorcycles, assesses the extent to which commercial motorcycle operators comply with safety practices, considers the factors that influence commercial motorcyclists to engage in crime, examines the level of security of the commercial motorcycle operators in the study area, and evaluates the measures for ensuring the safety and for curbing the crime committed by commercial motorcyclists to engender policy responses that could enhance motorcycle operations in the study area.

Akure, the capital city of Ondo State in the South Western part of Nigeria is currently classified as a millennium development city. It lies approximately on latitude  $7^{\circ}15'$  North of the equator and longitude  $5^{\circ}15'$  East of the Greenwich meridian and is easily accessible to other major urban centers in the State. A State with an area of 20.555 square kilometers. Osun, Ogun, and Ekiti States to the West, Kwara, and Kogi to the North, Edo, and Delta in the East and the Southern part by the Atlantic Ocean, bound it. Presently, the traffic composition of Akure is dominated by taxis,

'Okada' and minibuses. 'Okada' has a flexible advantage among them which makes commercial motorcycle operations a common source of livelihood, especially among the teeming unemployed youth in the metropolis.

## LITERATURE REVIEW

Transportation plays a major role in the development of human civilization. (Of & Means, 2015). Literatures presents transport as the means of getting from one place to the other, using different modes of travel. Transport has always played a major role in urban development since the emergence of cities a couple of thousand years ago (Oyesiku, 2002). In Nigeria, various forms of transportation have evolved over the years but commercial transportation was predominantly through buses and cars. Recently, motorcycles became very popular as a means of public transportation (Oluwadiya et al., 2004). This transition has been attributed to a number of socio-economic and political factors. For instance, commercial intracity operators opine that motorcycles are affordable, fuel efficient, cheaper to maintain, and can ply poorly maintained roads in cities, towns, and villages with relative ease (Oginni et al., 2006). This was prompted by the high cost and unenviable transport service provision which impacted negatively on economic activities and mobility of the urban population (Gbadamosi, 2006). The situation, with the rising demand for public transport not being matched by a corresponding increase in transport services, is exacerbated by the increasing poverty levels among urban residents in Nigeria, compounded by the economic depression of the 1980s that facilitated the introduction of motorcycles as an affordable means of inter-city transport (Olubomehin, 2012).

With population growth, land use became dispersed, trip length increased and better forms of transport to meet their ever increasing and specialized functions, remain an illusion. The arrival of motorcycles for commercial use in Nigeria addressed the insufficiency of the transportation system (Ikeano, 1991). Also, in a study conducted by Sugiyanto, Malkhamah, Munawar, and Sutomo, (2011), they stated that commercial motorcyclists are the cause of avoidable traffic congestion as they do not have regard for other road users, traffic regulations and laws. The evolution and activities of commercial motorcycle riders have attracted scholarly examination (Ogunsanya, 2003; Adesanya, 1998; Ikuomola, Okunola and Heap, 2009; Ogunrinola, 2011). One common trend of the majority of these studies is their focus on the dynamics of the emergence and activities of okada operators. These perspectives are reductionist in approach. The dysfunctional urban transport system and the economic dislocation of the vast majority of the populace are given scant attention in the literature. Thus, the narratives of okada business have neglected the connection given that they have rarely asked questions investigating how the okada business interacts with urbanisation and threatens the human person. This study however seeks to extend the discourse by making a connection between the emergence of the motorcycle as a form of business and the dimension embedded in this mode of transportation. This is necessary given the increasing urbanisation and the dynamics of okada's popular mode of intraurban mobility. Also, if these issues are not interrogated, the policy-making community is unlikely to draw a connection between commercial motorcycle operations and commuters' security and safety in Akure.

## RESEARCH METHODOLOGY

The social survey research approach was adopted for this study. The sources of data collection for this study include primary and secondary sources. The primary data were gathered directly from the field through various survey instruments such as questionnaires, interviews, pictures, and personal observation. Personal observation and visitation were carried out to ascertain the actual situation in the study area. The reconnaissance survey with the use of an up-to-date map of the area was adopted. In general, data was obtained from the administration of a structured questionnaire. Some of the data that were obtained through this source include the socio-economic characteristic of operators of commercial motorcycles; the extent to which commercial motorcycle operators comply with safety practices, the factors that influence commercial motorcyclists to engage in crime, the level of security of the commercial motorcycle operators in the study area, and the measures for ensuring the safety and for curbing the crime committed by commercial motorcyclists to engender policy responses that could enhance motorcycle operations in the study area.

For this study, the target population for the research was all commercial motorcyclists Akure metropolis. The number of motorcycle operators can't be ascertained as they increase daily without any formal registration.

Therefore, the sampling frame for this study is the total number of registered parks, fifty-one (51) in the Akure metropolis which was gotten from the Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACOMMORAN) Akure chapter. A systematic sampling technique was used which involves the selection of elements with a fixed periodic interval from an ordered sampling frame i.e., the estimated number of parks among the total registered park in the selected areas, one out of ten parks was selected. The sample size is 20% of the sample frame around the research area i.e., 11 motorcycle parks among the 51 earlier listed in the sample frame.

Questionnaires were administered in each of the selected parks, totaling 20 per park and resulting in a sample of 220 motorcycle operators. Also, data on accident rates were collected from the Federal Road Safety Commission (FRSC). The researcher collected qualitative and quantitative data which were processed and summarized and the raw data obtained from the field through questionnaires were subjected to analysis using univariate and bivariate analysis. Descriptive and inferential statistics were used in the analysis and presentation of data.

## FINDINGS

The summary of findings from the analysis of the data collected from the field will be discussed in line with the following: this includes

### **The Socioeconomic Characteristics of Operators of Commercial Motorcycles in Akure**

All commercial motorcyclists in the study area were males. This may be because it is a commonly observed phenomenon and customary to see more male than female gender in commercial motorcycling in the African cultural context. Furthermore, since motorcycling is a high-risk venture, males tend to engage more in risky ventures than their female counterparts do (Mwakapasa, 2011). As noted from the analysis of the findings, the majority of the riders in the study area are within the age bracket of 21 to 40 years. These categories of people are in their late adolescence and early adulthood and are characterized by high driving risk behaviour, always in a hurry and being aggressive. The study reveals that majority of the commercial motorcyclists are literate while a vast majority (53.8%) of them are holders of either West African Senior School Certificate (WASSCE), General Certificate Examination (GCE), or Senior School Certificate (SSCE). This implies that there is a possibility that commercial motorcyclists are informed about the hazards of motorcycling, may have the knowledge of the safety protective devices and may be easier to educate on safety protective devices. In addition, a majority (57.7%) of commercial motorcyclists have worked for 4 to 10 years. Thus, it is expected that they are more informed about the hazards of motorcycling than colleagues who have spent a shorter duration in the occupation. The study also reveals that 46.2% of commercial motorcyclists have not received any form of training before the commencement of the business and out of those who had previous training; 38.5% of the commercial motorcycle operators only trained for less than one month, 11.5% trained for probably one to three months. This shows that both passengers and commercial motorcyclists subject themselves to great risk of motorcycle injury during most episode of riding. Significant proportions (53.8%) of the commercial motorcyclists work for over eight hours per day continuously, meaning that they still work even when tired and wonder some of them indulge in alcohol and performance-enhancing drugs, to reduce the effect of the direct cold they are often exposed to as they operate in the early hours of the morning and late in the evening.

### **Safety and Security Practices and Traffic Rules Level of Compliance among Commercial Motorcyclists in Akure**

Concerning safety practices among commercial motorcycle operators, it was discovered that 26.9% of motorcyclists had license, either valid (current) or expired. Reasons for non-possession of rider's license are: high cost of procurement, and financial problems, while some claimed that it is not necessary. Total compliance with the national road traffic regulation on the use of safety equipment like a crash helmet, hand gloves, goggle and protective clothing while riding was observed. Nevertheless, none of the surveyed riders have crash helmet for their passengers. In addition, majority (92.3%) of commercial motorcyclists claim to be aware of the Highway Codes which serve as a guide for them while riding the motorcycle. However, law enforcement agents are interested in the proper functioning of safety elements in the motorcycles, hence the motorcyclists (86.7%)

ensure that their indicator lights and headlamps are in good working condition. The use of protective devices and the proper function of these devices by motorcyclists are not borne out of safety concerns but from the need to protect themselves from cold or because of enforcement by regulatory agencies. Safety precaution is lacking among commercial motorcyclists. Most (55.0%) commercial motorcyclists have been involved in one form of traffic accident or another while riding their motorcycles

### Level of Compliance with Highway Regulation by Commercial Motorcyclists

Table 1 shows the extent to which commercial motorcycle riders comply with rules and regulations contained in the Nigerian Highway Code. 27 (45.0%) confessed that they carry more than one passenger at a time, 16 (26.7%) indicated that they carry more than one passenger all of the time, and 17 (28.3%) submitted that they carry more than one passenger (mean= 3.7). Likewise, 45 (75.0%) claimed that they checked their motorcycles every day before riding, 2 (3.3%) operators only checked their motorcycles before riding occasionally, and 1 (1.7%) noted that he does not check their motorcycle daily before riding. Also, 48 (80.0%) said they put on their trafficators before parking to carry passengers, while 3 (5.0%) do not care to put on trafficators light when parking to carry passengers (mean=3.9). Similarly, 52 (86.7%) said they have functioning trafficators lights, mirrors, horns and rear lights, while 3 (5.0%) do not (mean= 3.9). Besides, 55 (91.7%) operators reported that they maintain road safety speed as noted in the Nigerian Highway Code, 2 (3.3%) stated that they don't observe road safety speed, while 3 (5.0%) claimed that they maintain it sometimes (mean= 4.0). In addition, 44 (73.3%) said they keep a long distance between themselves and the vehicle ahead of them to forestall accidents, 8 (13.3%) operators said they adhere strictly to the highway regulation in keeping a reasonable distance between them and the vehicle/motorcycle ahead of them, 5(8.3%) said they put on this behaviour occasionally, while 2 (3.3%) stressed they don't keep the appropriate distance that is expected to be kept between vehicle/motorcycles on the road (mean= 4.2).

**Table 1: Level of Compliance with Highway Regulations**

S/N	Item	SD	D	I	A	SA	Mean	S.D
1.	I take on more than one passenger at times	---	17 28.3%	---	27 45.0%	16 26.7%	1.15	3.7
2.	I check my motorcycle every day before riding	---	1 1.7%	2 3.3%	45 75.0%	12 20.0%	4.1	0.53
3.	I put on their trafficators before packing to carry passengers	---	3 5.0%	2 3.3%	48 80.0%	7 11.7%	3.9	0.59
4.	The trafficators, mirrors, horns, and rare lights of my motorcycle are functioning well	---	3 5.0%	5 8.3%	42 70.0%	10 16.7%	3.9	0.67
5.	I maintain road safety speed	---	2 3.3%	3 5.0%	46 76.7%	9 15.0%	4.0	0.58
6.	I keep a reasonable distance between my motorcycle and the vehicle	---	2 3.3%	5 8.3%	44 72.3%	8 13.3%	4.2	2.40
7.	I wear a helmet while riding	2 3.3%	2 3.3%	8 13.3%	42 70.0%	6 10.0%	3.8	0.79

8.	I consume alcohol only at night	10 16.7%	29 48.3%	10 16.7%	3 5.0%	8 13.3%	2.5	1.22
9	I consume alcohol during the day	---	3 5.0%	6 13.3%	5 58.3%	6 10.0%	2.4	1.14
10	I always ride with my license Maneuvering	3 5.0%	9 15.0%	11 18.3%	24 40.0%	13 21.7%	3.5	1.13

Key: SD- Strongly Disagree, D- Disagree, I- Indifferent, A- Agree, SA- Strongly Agree

### Incidence of Accidents

The operators were asked if they have for once been involved in any form of accident. 33 (55.0%) confessed that they have been involved in motorcycle crashes either in the past before the commencement of motorcycle business, while 27 (45.0%) claimed they do not have any history of motorcycle crashes.

**Table 2: Nature of Accidents Involvement**

Nature of Accident	Frequency	Percentage
Hit a Vehicle	17	35.4
Hit a Pedestrian	7	14.5
Hit an Object	10	20.8
Own Crash	14	29.1
<b>Total</b>	<b>*48</b>	<b>100.0</b>

Source: Author’s field survey, 2021

*\*Note: This is lower than the questionnaire administered because some respondents could not answer this question as a result of their option in the previous question*

Table 2 was used as a check to obtain the true picture of the accident pattern of the motorcyclists. It was discovered earlier that an average commercial motorcycle rider has been involved in motorcycle crash, but a clearer picture of their behaviour in terms of the crash pattern was discovered in Table 3, 17 (35.4%) claimed that they hit a vehicle, 14 (29.1%) commercial motorcyclists claimed it was own crash, they fell either when trying to evade government agents like policemen and VIOs, while some said that it was through mechanical fault like brake failure. 10 (20.8%) claimed they hit objects, animals, fellow commercial motorcyclists, vehicles, etc. 7 (14.5%) respondents had motorcycle-pedestrian kinds of crashes.

**Table 3: Perceived Causes of Commercial Motorcycle Accidents**

S/N	Item	SD	D	U	A	SA	Mean	S.D
1.	Over speeding	---	2 3.3%	3 5.0%	18 30.0%	37 61.7%	4.5	0.74
2.	Wrong Overtaking	---	2	---	28	30	4.4	0.67

			3.3%		46.7%	50.0%		
3.	Bad roads	---	2 3.3%	---	45 75.0%	13 21.7%	4.1	0.57
4.	Mechanical Defects	2 3.3%	3 5.0%	3 5.0%	40 66.7%	12 20.0%	3.9	0.87
5.	Alcoholic intake	---	2 3.3%	5 8.3%	35 58.3%	18 30.0%	4.1	0.78
6.	Tyre Defect	---	3 5.0%	6 10.0%	28 46.7%	20 33.3%	6.1	8.76
7.	Trafficators Failure	---	4 6.7%	13 21.7%	35 58.3%	8 13.3%	3.7	0.76
8.	Animal Crossing	---	6 10.0%	6 10.0%	34 56.7%	14 23.3%	3.9	0.76
9	Overloading	---	3 5.0%	4 6.7%	37 61.7%	16 26.7%	4.1	0.72
10	Wrong Maneuvering	---	1 1.7%	6 10.0%	43 71.7%	10 16.7%	4.0	0.58
11	Poor knowledge of traffic Code	---	1 1.7%	8 13.3%	45 75.0%	6 10.0%	3.9	0.54
12	Smoke emissions from the other Vehicle	---	7 11.7%	7 11.7%	44 73.3%	2 3.3%	3.6	0.72

**Key: SD- Strongly Disagree, D- Disagree, I- Indifferent, A- Agree, SA- Strongly Agree**

The factors that increase the rate of accidents among commercial motorcycles are presented in the Table above. Over speeding was ranked highest, 55 (91.6%) operators agreed that it was the major cause of accidents among commercial motorcycle riders. 2 (3.3%) disagree (mean= 4.5). 58 (96.6%) respondents supported wrong overtaking as the major factor responsible for the high rate of accidents among commercial motorcycle riders while 2 (3.3%) operators were not in support of this fact (mean= 4.4). 45 (75.0%) stressed bad roads as the principal cause of accidents among commercial motorcycle riders, and 2 (3.3%) disagreed bluntly with the assertion (mean=4.1). 52 (86.6%) commercial motorcycle operators remarked that mechanical defects on the motorcycle like the sudden cut of a wheelchair, loosening of bolts and nuts, and brake failure among others as the main factors responsible for the high rate of accidents among commercial motorcycle riders while 5 (8.3%) motorcyclists objected to the stand (mean= 3.9).

Additionally, 53 (88.3%) okada riders-maintained alcohol intake by the riders is a major factor responsible for the high rate of accidents among Okada riders in Nigeria, while 7 (11.6%) operators rejected this claim (mean= 4.1). 48 (80.0%) operators remarked tyre defect as the main factor responsible for the occurrence of accidents

among okada riders, and 43 (71.6%) noted trafficators failure and misinformation as the principal factors that made accidents among okada riders to be on the increase. 48 (80.0%) operators affirmed animal crossing as a factor that aids the high rate of accidents among motorcycle riders (mean= 3.9). 53 (88.3%) okada riders agree that carrying more than one passenger at a time (overloading) was a major factor responsible for the menace (mean= 4.1). Other factors noted by the commercial motorcyclists to be responsible for the high rate of commercial motorcycle accidents are listed according to the level of agreement: Wrong maneuvering 53 (88.3%), Poor traffic knowledge 51 (85.0%) and lastly, smoke emission of other vehicles 46 (76.6%).

The finding collaborates with the earlier finding of Odero *et al.*, (1997); Ngim and Udosen (2007); Salawu, (2008); Adisa, (2010), and Ogunmodede (2012) that over speeding, bad roads, dangerous overtaking, use of alcohol, and poor knowledge of traffic codes are factors that are responsible for accidents among commercial motorcyclists.

### Factors Propelling Commercial Motorcycle Operators into Crime in Akure

Further analysis was done to assert the factors that propel commercial motorcycle riders into crime. This is presented in Table 4

**Table 4: Factors Inducing Commercial Motorcyclists into Crime**

Factors	Frequency	Percentage
Unemployment	43	19.3
Financial Problems	45	20.2
Greed and Materialism	45	20.2
Consumption of drugs	42	18.9
Poverty	47	21.1
<b>Total</b>	<b>222</b>	<b>100.0</b>

*\*Note: This exceeded the number of questionnaires administered because of multiple responses.*

Several operators have now been engaging in crime, reasons for these include 43 (19.3%) respondents remarked that unemployment is the major factor that thrust okada riders into crime, [45 (20.2%), again 45 (20.2%)] accounted respectively for financial problems, greed covetousness and, materialism on the part of the rider. Other factors in the order of frequency include poverty accounting for 47 (21.0%) and consumption of hard drugs like cocaine, heroin, etc. constituted 18.9% of the commercial motorcyclist.

### RECOMMENDATIONS AND CONCLUSION

This study assessed the safety associated with the operation of commercial motorcycles in Akure. Based on the findings of the study, the following recommendations are suggested for implementation. Firstly, to ameliorate the identified problems associated with the commercial motorcycle operation in Akure, the state Government should create more employment opportunities for people, particularly for the youth of the state who are the major workforce of the state. Secondly, effort should be made by the government to rehabilitate bad roads and even construct motorcycle bike lanes, particularly in Akure where the major means of mobility is by motorcycle. Upgrading the existing three-wheel cycles and improvements in the operational efficiencies of city taxis will go a long way in reducing road accidents and thus reducing the influx of commercial motorcycles. Furthermore, training and retraining of motorcycle riders must be emphasized and the formation of proper enforcement measures through the Federal Road Safety Corps (FRSC) and Nigeria Police Force (NPF) should be undertaken at all times. In addition, an accurate database should also be inaugurated and frequently updated to help facilitate



effective road monitoring of commercial motorcycle activities for sustainable urban transport planning. This will help in record keeping and trace any accident victims or crimes committed by the operators. To ascertain a level of experience in riding, motorcyclists should be made to undertake tests and licenses issued before they can be permitted to ride on roads. Regulation on the compulsory use of safety materials (PPE) should be enforced. Lastly, the establishment of monitoring units to perform surveillance functions; mobile courts may be set up to arrest and try erring motorcycle riders or impose sanctions to enforce strict compliance. This can be achieved by recruiting more trained and experienced law enforcement agents so that the menace of criminal activities, safety, patience, over speeding, and noncompliance with traffic rules associated with commercial motorcycles will be curtailed and the pedigree of genuine commercial motorcyclists is protected in Nigeria.

Though the emergence of commercial motorcycles came as a big relief, it can also be discovered that the problems associated with its operations are enormous. Sequel to this, major conclusions were made that motorcycling business offers employment opportunities to the people and should not be banned or restricted as the case may be, also that the government bears most of the blame for the high wave of criminal activities due to wasteful and unprofitable spending as well as inadequate planning which in latent effect, create unemployment, hunger, and poverty for the masses. Majority of the motorcycle accidents occurred in the evening with a percentage of 53.8%. We can infer from this that fatigue is often the cause of the accident occurrences since most riders would have been worn-out by then. However, FRSC public education to a large extent should be emphasized to change the behavior and driving habits for the length of daily work of commercial motorcyclists thereby reducing accidents and injuries involving commercial motorcyclists.

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