

# THE INTERNATIONAL JOURNAL OF SCIENCE & TECHNOLEDGE

## Impact of Driver's License Status of Commercial Drivers and the Rate of Road Traffic Accidents in Nigeria: A Case Study of Abuja and Lagos

**Adewale Tajudeen Akande**

Doctoral Researcher, Department of Applied Education, Road Safety Education and Training, University of Autnoma, Bellaterra, Barcelona, Spain

### **Abstract:**

*Background/Objective:* The main concern of this research is the continuous involvement of commercial vehicles in road traffic accidents in Nigeria with the magnitudes of the fatalities and huge economic cost implications annually. The objective of this study is to understand and investigate the trends of road traffic accidents in Nigeria and equally examine the effect of the driver's license status of commercial vehicle drivers on the risk of road traffic accidents in those two sites selected.

*Materials and Methods:* The methodology behind this research includes a comparative research design for evaluation of the two survey locations of Nigeria's new and old capital cities with differences and similarities. The research involves quantitative method with the use of 10 questions on Incidences of road accident, driving license status and socio-demographics characteristics which was adapted from the tested five-in-one instrument called LoMICs-DBQ. It is a direct self-reported questionnaire model for data collection as the primary source with these cognitive questions to be answered with a 6-point Likert scale. Other related data was facilitated by the FRSC and National Bureau of Statistics in Nigeria. Simple Random sampling was used to select the total of 600 drivers out of which only 471 gave their consent and subsequently investigated. This study survey ethical clearance was obtained from the motor parks union leaders and participants are registered bus drivers in Abuja and Lagos within their local government authorities. The data collected was analysed using, SPSS 25, line charts, cross-tabulation which a tool for descriptive statistics, chi-square and Linear Regression which are inferential statistics tools to show relationship between the Demographic variables of the drivers, driving license status and the rate of accidents in the two survey relations.

### *Results:*

The table also shows a coefficient of correlations ( $R$ ) of 0.665 and the adjusted  $R$  square of .257. This means that 25.7% of the variance in the rate of road accident in Lagos is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant ( $F = 2.383$ ;  $df = 1, 3$ ;  $p > 0.05$ ) and that other variables not included in this model may have accounted for the remaining variance. The table also shows a coefficient of correlations ( $R$ ) of 0.461, and the adjusted  $R$  square of .049. This means that 4.9% of the variance in the rate of road accident in FCT Abuja is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant ( $F = .812$ ;  $df = 1, 3$ ;  $p > 0.05$ ) and that other variable not included in this model may have accounted for the remaining variance in the rate of road accidents.

*Conclusion:* There is a significant relationship between demographic variables of the participants and their driving license status, that Driving License Status of commercial drivers in Lagos has a significant effect on the rate of road accidents among the commercial drivers in the state and that Driving License Status of commercial drivers in FCT Abuja has a significant effect on the rate of road accident among the commercial drivers in the Territory. The paper concludes with recommendation for policy makers to take effective, proactive policy design, intervention, and enforcement in order to reduce risk and unsafe driving behaviour on the roads.

**Keywords:** Driving License, Licensing Procurement, Driver's License Status, Road Traffic Accident, and Driving Education

### **1. Introducción**

This study is about the impact of driver's license status of commercial bus drivers and the rate of accidents in Abuja and Lagos, Nigeria. Specifically, this study examines how driver's training, licensing procurement and driving style and challenges of crash risk. The study examines the details of the demographic and cognitive characteristics of a driver and effect of these on crash fatalities. The study also seeks strategic intervention to reduce carnage on the roads. This chapter will elaborate on the study aims and research questions; background to the research and statement of the problem; conceptual framework; theoretical basis of the study; Nigeria licensing procurement: an overview.

### 1.1. Aims and Research Questions

The study aimed to investigate on driver's license status and the impact it has on crash risk in Abuja and Lagos, Nigeria. This study is guided by the following research questions:

- What effect does a driver's demographic characteristics have on his driving license status?
- Can a driver's driving license status determine the rate of traffic accidents?

### 1.2. Background to the Research and Statement of the Problem

There is serious gap existing between licensing procurement and evidence available on the rate of accidents. The wide gaps include the driving education, driving procurement and certification and risk factors associated with abnormal driving behaviour. Recent study proves that drivers play a significant role for occurrence of the road traffic accidents in Africa (Deme, 2019). This study is aimed at filling this gap by considering the issues around intricacies of license procurement and safe driving behaviour. 93% of the world's fatalities on the roads occur in low-and middle-income countries and these countries dominantly approximately 60% of the world's vehicles (WHO, 2020) Road traffic accidents predicted to become the 7<sup>th</sup> leading cause of death by the year 2030 (WHO Factsheets, 2018). The United Nations World Population Prospects in 2017 had predicted the world's population will hit a staggering 9.8 billion by 2050 and that Nigeria will overtake the United States to become the third most populous country in the world and surpass 300 million people mark by 2050 (CNN- Inside Africa, 2017).

Nigeria is ranked as the country with the second largest road network in Africa (Sumaila, 2013). Nigeria is estimated to have 11.7 million registered motor vehicles on Nigeria's roads as at the fourth quarter of 2018, with a 2% difference from 11.6 million in 2017 estimation. Out of these total registered vehicles, of 11,653,871, commercial vehicles recorded the highest number of registered vehicles with 6,768,756 representing 58.08% of the number while private cars estimated 4,739,939 (40.67%) and government vehicles followed with 139,264 ((1.19%) and diplomatic vehicles estimated for 5,912 (0.05%). In the first quarter of 2018, a total number of 223,107 drivers' license were produced across the country with Lagos State having the highest number of drivers' licenses estimated 57,205 licenses representing 25.64%, Ogun State with 13,187 and Oyo State with 11,923 while Ekiti State and Kebbi State produced the least number of drivers' licenses (NBS, 2018).

In the first quarter of 2018, 2,189 vehicles accidents were recorded across the country, 1,220 people were killed out of 16,603 involved, 7,848 were seriously injured of which 1,232 were serious and 296 were minor cases. Abuja, the federal capacity territory (FCT) recorded 274 crashes with 1,513 persons to make it the highest number of road crashes in Nigeria with Kaduna with 198 crashes cases involving 1,487 persons and Nasarawa with 131 crash cases involving 877 persons. Commercial vehicles recorded the highest number with 2,330 crash cases (60.3%) and private vehicles recorded 1,480 crashes representing 38.30%. (NBS, 2018).

The road crash pandemic in Nigeria is having its toll in the productive population and decreases the National Gross Domestic Product (GDP) by 3% per annum (Oyeyemi, 2018). Nigeria loses about 100 billion of Naira annually to road traffic accidents (FRSC, 2012). Nigeria is ranked second highest among 123 countries of the world with higher road fatalities (Agbonkhese, et al 2013). Nigeria loses \$6.2 billion yearly to road crashes (Yushau, 2010). In their previous study with extracted exploratory data from Nigeria, (Labinjo et al, 2010) explain the road traffic accidents victim's dilemma as 29.1% of them suffer disability and 13.5% are unable to return to their respective jobs.

The high rate of fatalities in Nigeria in the last two decades despite the effort of the lead agency-Federal Road Safety Corps make it a burden to be taken lightly especially with crashes on the Nigerian roads with increasingly 7.7 million registered drivers (Chidoka, 2011). This road pandemic has been considered as one of the highest killers in Nigeria with an average of not less than 20 people per day (Brammah et al, 2014). Nigeria has been claimed to have the highest road accidents and largest number of deaths per 10,000 vehicles on the road (Sheriff, 2009) and this trends and incidence of carnage is increasing (Eze,2010) with the use of cheap transportation system of commercial buses and mini-buses as the feature of low and middle-income countries implication of road traffic injuries (Nantulya& Reich, 2002). A recent estimate by the year 2030 the rate of deaths from traffic accidents will surpass cerebrovascular disease, tuberculosis, and HIV/AIDS in Nigeria (Iyanda, 2013).

A motor driver needs knowledge, attitude and skills to drive safely. There is enough empirical evidences and findings that agreed that human error plays a vital role in a large percentage of road crashes in Nigeria. This makes it important that a person shall not drive a motor vehicle on any road unless that person is in possession of a valid driver's license.

### 1.3. Conceptual Framework

This study is used to promote an important behaviour measuring tool that is not sufficient to create firm structure for the investigation (Akintoye, 2015). The new measuring tool called LoMICs explores complete cognitive and psychometric variables summation of before of a typical commercial driver from low-medium-income countries. The goal of this research is to show the relationship between participants' demographic variables (age, gender, religion, education attainment, marital status, ethnicity and vehicle ownership) and their driving license status (missing license, under-renewal, without license and holder of license). Besides, it is also to test the relationship between participants driving license status and the rate of accidents in both the two survey sites (Abuja and Lagos). All the variables cause-effect relationships and correlation are explained to demonstrate the natural progression of the phenomenon investigated (Camp, 2001)

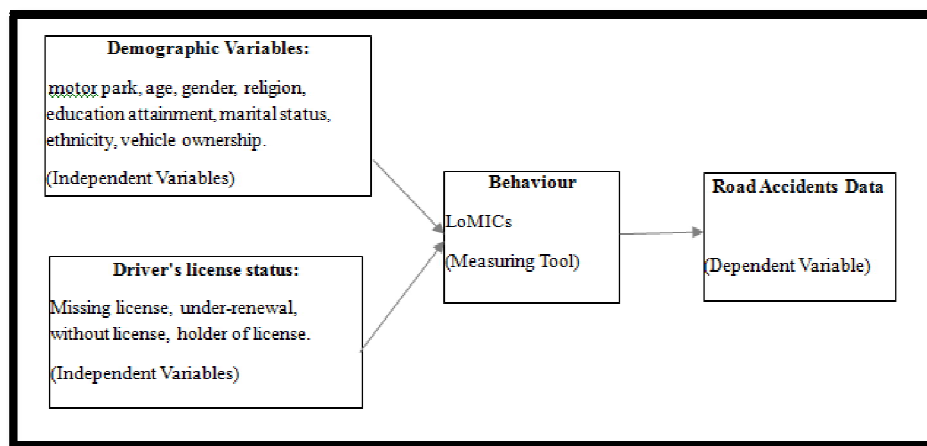


Figure 1: Graphical Presentation of presumed Relationship among the Variables

#### 1.4. Theoretical Basis for the Study

The theoretical basis for this investigation is to understand the associations between driver's demographic characteristics and license status. This section provides a blueprint of this research inquiry (Adom, et al 2018) and a common lens from whom to support the thinking about the problems and data collected (Grant & Osanloo, 2014). Previous historical study documented that, the Motor Car Act of 1903 was the Act of the United Kingdom parliament that legalised motor vehicle registration and driver licensing as from 1st of January 1904 (The London Gazette, 1903). In 1909, there was a convention with respect to the international circulation of motor vehicles and later 'international driving permit' was debated twenty years before the United Nations Convention on Road Traffic hosted in Geneva, 1949 (UNO,1949) and the Vienna Convention on Road Traffic in 1968 (UNO,1968) that finally ratified and legalized the issue of domestic and international driving permits. Driving is not a right, but a privilege and responsibility to meet daily safety needs on the roads. Drivers engage in risky driving behaviour when violate traffic rules and regulations

An individual must have a satisfactory knowledge of road traffic rules and regulations to get a driving license or permit. Driving license servers as a legal tender, a certificate of competency in knowledge, attitude, and skills to drive safely. Driver's license also serves as a proof of proficiency (Okafor et al, 2013). To drive a vehicle in a public road, you must hold a current and valid driver's license any time on the wheel (RSA, 2018). There is no single day in the whole world where a motor vehicle is not used. Driving license education is generally accepted as basic requirement to drive on public roads but empirical evidence shows for safety benefits is lacking (Mayhem et al, 1998). Every day, driver moves persons and goods to desired locations and destinations to fulfil a contract that nobody expects to result in an accident. Lamentable, everyday many are killed, injured, and lost personal property on our roads, leaving behind shattered families and huge costs to bear by the government.

The study also discusses new measures and interventions needed to further reduce carnage on our roads. These include making driving training compulsory, traffic laws need strengthening; compliance needs to be enhanced through evidence-based programs to involve parents, police, and adolescents (Williams, et al 2008). Profession competence assessment (PCA) in road safety sector is a welcome intervention as this competency-based approach to assessment of professionals in potentially more valid than traditional approaches (Gonczi,1994).

The concerned policy makers have to make efforts on educating drivers and driver's license procurement management with proper road safety education that could help to improve traffic safety in Nigeria (Uzundu et al, 2018). Previous study from Jariot and Rodriguez, (2007) during the formation of one-hundred driving instructors in Spain concluded that there is vital need for theoretical models of professional competences on road formation of driving schools' instructors / teachers.

#### 1.5. Nigerian Driver's Licensing Procurement: An Overview

Licensing procurement in Nigeria involves several authorities that makes the process confusing and strenuous for prospective applicant. This background has it tolls on illegal certification. And poor driving culture of licensed drivers (Olumide et al, 2014). The list include the Federal Road Safety Commission (FRSC) for license issuance, the Vehicle Inspection Office (VIO) conducting the driving test, the Motor Licensing Authority where applicant to obtain driving application forms, the Driver's License Centres and private Driving schools for license renewal and conduct of driving training as approved by Driving Schools Standardization Programme (DSSP). With all these outlets, it is assumed that most prospective driver bypass application procedures or these above-mentioned authorities to bribe some officials and obtain their license without obligatory driving test, practical and medical fitness and visual acuity test and certificate.

Moreover, despite with the idea of nationally harmonized and digitalized licensing system vision in 1989 by the Federal Road Safety Corps that led to the production of the first National Driver's License (NDL) IN 1990 (Oyeyemi, 2018), thirty years after that vision of establishing a database for all licensed drivers have not yet been realised due to several factors. In 1997, usher in the era of Enhanced National Driver's Licence (ENDL) which was decentralized to each State of federation under the new name of Information Processing Centre (IPC) with Bio-date and Bio-metrics back up from the Central Bank of Nigeria but could not be sustainable due inadequate power supply and non-availability of internet connectivity to the centres. In 2005, FRSC changed from ENDL vision to Customized National Driver's License (CNDL)

between 2005 and 2011. In 2011, the FRSC again reviewed the old CNDL and coined it with another name, Enhanced National Driver's License (ENDL) which is now being used up till the time of this study.

## 2. Methodology

This section explains in detail the quantitative experimental survey study to generalizable knowledge about the intricacies on the impact of driver's license status and crash risk in Abuja and Lagos. This experimentation includes methodological approach; study location/survey site; study design; participants; characteristics of the sample; and direct self-report measurement tool-LoMICs Driving Behaviour Questionnaire.

### 2.1. Methodological Approach

This study explores cross-sectional surveys with the use of self-report measures on selected respondents in the four bus stations. Abuja, the new capital city and Lagos State is selected and regarded as most accurate samples with large population and motorization characteristic to draw valid conclusions. The questionnaire survey was administered in the four motor parks (bus stations) between 11<sup>th</sup> of January and 23<sup>rd</sup> of February 2017. The survey questionnaire consisted of cognitive variables which is divided into three sections. Section 1 features the Demographic Characteristics of the respondents with 10 items, the Section 2 deals with the Driving Background History of the drivers investigated with 20 items while the last Section 3 contains the drivers' cognitive variables of 30 items.

The questionnaire is 5 multiple-choice questions for respondents to answer with a 6-point Likert Scale (Likert, 1932), The initial aim is to conduct the survey with 800 respondents (200 from each bus station). 471 were finally investigated out of 600 questionnaires printed at the rate of 150 respondents from each bus station. Respondents were given 20 minutes to fill in the survey-questionnaire without their personal identification data. Simple Sampling was used to select those participants as registered drivers in all the four bus stations respectively. Simple Random Sampling was used to select the four Bus Station (motor parks) which were Oshodi Bus station, Mile 2 bus station (both in Lagos) Utako bus station and Peace Mass Transit bus station (both in Abuja).

### 2.2. Study Location / Survey Site

- **ABUJA:** Peace Mass Transit and Utako motor park were survey sites in Abuja. Abuja is the present federal capital city of Nigeria. Abuja's population is now estimated as 3,277,740 in 2020, with density of 1853 km<sup>2</sup>, growth rate of 6.07% and land area is 1,769 km<sup>2</sup>. Seventy years ago (1950), Abuja population was estimated 18,977. Abuja is one of the fastest growing cities in the world. Abuja is projected to be 5,119,340, with 3.99% growth in 2030 (UN-WUP,2020). At 2006 census, the city had a population of 776,298 (NPCN, 2006). Abuja is located within the Federal Capital Territory. Abuja which replaces Lagos as capital of Nigeria on 12, December 1991.
- **LAGOS:** The popular Oshodi bus station and Mile 2 bus stop were the site locations in Lagos. Lagos, which doubles as a port and 'business' city, was the capital of Nigeria since its amalgamation in 1914 until 1991 when it was replaced by Abuja as planned to bring all of the various tribes, religions and ethnic groups together. Lagos state generates 25% of Nigeria's total Gross Domestic Product (GDP). Lagos is estimated to be having now 14,368,332 population, with density of 12,267 km<sup>2</sup>, growth rate of 3.34% and land area of 1,171.28km<sup>2</sup> (452,23 square miles). In 1950, Lagos, which is now the most populous city in Nigeria had 325,218 population in 1950 - seventy years ago. The eight fastest growing city in the world is expected to be 20,600,156 population with 3.73% growth rate double its population in 2050(UN-WUP,2020).

### 2.3. Study Design

This investigation builds on an ethnographic model for a cross-sectional survey of commercial bus drivers involving two survey sites (Abuja), the present federal capital city of Nigeria, and Lagos, the old federal capital city of Nigeria. A comparative research design is used that is based on a high-level reliability, quasi-experimental and non-quasi experimental to draw explicit differences and similarities that exist between the two variants of the two geographical locations.

### 2.4. Participants

This study survey ethical clearance was obtained from the motor parks union leaders and participants are registered bus drivers in Abuja and Lagos within their local government authorities. A simple random sampling technique was used in selecting subjects which consist of 600 (150 participants from each park) commercial bus drivers from which samples was drawn are from two most important economic areas (Abuja and Lagos State- the two different geographical locations) in Nigeria. Those selected drivers have registered in their respective motor parks and have affiliation with the National Union of Road Transport Workers (NURTW). The 471 participant-drivers were investigated from the four different bus stations in Abuja (Peace and Utako) and Lagos (Mile 2 and Oshodi). 129 out of 600 prospective participants were not investigated due to their absence and void questionnaire papers. The respondents were administered with the Semi-Structured Questionnaires (self-report) to measure their driving attitudes and past behaviours. This was done with their consent, anonymity and confidentiality of the data collected.

## 2.5. Characteristics of the Sample

This study explores the samples of population of two most important economic areas (Abuja and Lagos State- the two different geographical locations) in Nigeria. The reason for is the consideration given to the numbers and volume of motor vehicles especially where commercial buses are a model of transportation, the pattern of population and the increase in exposure to the risk in road traffic safety which was termed 'societal benefit and societal cost' (WHO, 2006). In addition, simple random sampling technique was used in selecting subjects which consist of 600 commercial bus drivers from which samples was drawn from 471 who finally responded in those two different geographical locations.

## 2.6. Direct Self-Report Measurement Tool: LoMICs-Driving Behaviour Questionnaire

This is the author's newly adapted and tested five-in-one- optimize measuring tool called LoMIC-DBQ. This new instrument called LoMICs-DBQ is a combination of Driver Behavior Questionnaire DBQ (Reason et al, 1990), Driver Attitude Questionnaire DAQ (Parker et al, 1996), Driver Skill Inventory DSI (Lajunen and Summala, 1995), Driver Anger Scale DAS (Deffenbacher, Oetting and Lynch, 1994) and Safety Climate Questionnaire SCQMD (Glendon and Litherland, 2001). This adapted tool (LoMICs-DBQ) gives answer to individual cognitive variables complexities for developing world nations. This new instrument is an expected development that will give new insights to academia and policymakers in terms of validity and variability in behavioural investigation most especially in low- and medium-income countries with characteristic complex socio-economic, cultural, political and religion beliefs.

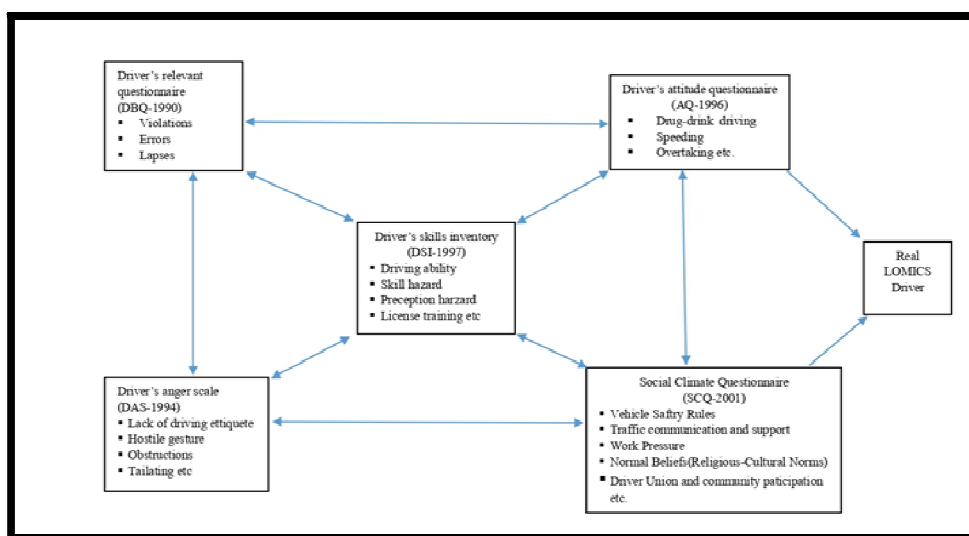


Figure 2: Low- Medium -Income Countries Driver Behaviour Questionnaire (Lomics -DBQ)  
LOMICS-DBQ (2019) Has 30 Items of Psychometric and Cognitive Normative  
Characteristics of a Driver from Low- Medium- Income Countries LOMICS  
Source: Akande, TA (2019)

## 2.7. Materials and Procedure

Administration of the Instrument in the Four Survey Sites which are Peace and Utako motor parks in Abuja and Mile 2 and Oshodi motor parks in Lagos.

Seven research assistants were trained and involved in administration of the questionnaires. Four research assistants in Lagos while the other three were recruited for the Abuja exercise, respectively. The collection of data from these four survey sites from the two cities of Abuja and Lagos lasted for 7 weeks with Lagos taken as the starting point. The structured questionnaire was administered to elicit information from randomly picked drivers in selected motor parks in Abuja and Lagos.

Self-Report Model: Measurement used on this research study was based on respondents direct Self-reports which is known as primary source of data collection in field of social sciences and psychology was used throughout the exercise. This is to facilitate about their contents to improve driving, risky driving behaviour, and self- assessment of likelihood of being in crash risk (Molina, et al 2013). Self -report has been argued to '...help learn about individuals` thoughts, feelings and behaviours and to monitor societal trends, from the nation`s unemployment rate to the development of crime' (Schwarz, 1999). The research involves quantitative method 10 items were adapted out of the structured cognitive and psychometric variables of 30 items and 28 questions on driving license status and socio-demographics characteristics. The respondents were fully briefed on the purpose of the investigation and this increased the acceptability of the questionnaire. The respondents were urged to be fair and sincere in their responses. Most of the respondent- drivers were met at their parks for the exercise either when they were on break (breakfast or lunch) or when they were waiting for their respective buses to be filled with the passengers.

Yoruba and Pidgin English languages were used in some occasion by the research assistants whenever some respondents needed more clarification or information on a question or statement in the questionnaire. The questionnaire was collected immediately after the end of the exercise. The whole exercise was conducted based on voluntarily and anonymous.

## 2.8. Data Analysis

In this paper, the analysis is to:

- To show the relationship between participants' demographic variables and their driving license status. Cross tabulation and chi-square were used.
- To test the relationship between participants driving license status and the rate of accidents in both the two survey sites (Abuja and Lagos). SPSS 25 (Dong, 2017) was used to analyse a wide scope of data collected from the four survey locations. Correlation and Linear Regression which are inferential statistics tools to show relationship between the Demographic variables of the drivers, driving license status and the rate of accidents in the two survey relations.

## 3. Results

The initial plan was to investigate 150 in each of the four bus stations but finally got 471 participants consent and administered the questionnaires.

The results are divided into two Objectives as it relates to this study's Research Questions:

- Objective One: To show the relationship between participants' demographic variables and their driving license status cross tabulation was used.

Relationship between Motor Park and Driving License Status											
		Driving License Status									
		Missing		Under Renewal		No License		Holder of License		999	
Response		Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
	Peace Park	3	8.3	54	35.1	3	18.8	51	20.0	4	40.0
	Utako Park	12	33.3	25	16.2	1	6.2	65	25.5	0	0.0
Motor Park	Oshodi Park	7	19.4	17	11.0	6	37.5	90	35.3	2	20.0
	Mile 2 Park	14	38.9	58	37.7	6	37.5	49	19.2	4	40.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Relationship between Age and Driving License Status											
Age	18-27 years	4	11.1	9	5.8	1	6.2	21	8.2	1	10.0
	28-37years	17	47.2	49	31.8	8	50.0	57	22.4	2	20.0
	38-47 years	10	27.8	44	28.6	5	31.2	82	32.2	5	50.0
	48 - 57 years	3	8.3	24	15.6	2	12.5	68	26.7	1	10.0
	58-67 years	2	5.6	24	15.6	0	0.0	20	7.8	1	10.0
	68 and above	0	0.0	4	2.6	0	0.0	7	2.7	0	0.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 49.184, Critical Value =37.65, df =25, $\alpha = 0.003 @0.05$											
Relationship between Gender and Driving License Status											
Gender	Male	32	88.9	134	87.0	14	87.5	239	93.7	10	100.0
	Female	4	11.1	14	9.1	2	12.5	9	3.5	0	0.0
	999	0	0.0	6	3.9	0	0.0	7	2.7	0	0.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 15.142, Critical Value = 18.31, df = 10, $\alpha = 0.127 @0.05$											
Relationship between Religion and Driving License Status											
Religion	Muslim	19	52.8	53	34.4	8	50.0	80	31.4	5	50.0
	Christian	13	36.1	83	53.9	7	43.8	160	62.7	4	40.0
	Traditional	3	8.3	13	8.4	1	6.2	9	3.5	1	10.0
	Others	0	0.0	1	0.6	0	0.0	1	0.4	0	0.0
	999	1	2.8	4	2.6	0	0.0	5	2.0	0	0.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 22.412, Critical Value = 31.41, df = 20, $\alpha = 0.319 @0.05$											

Table 1: Showing the Relationship between Demographic Variables of the Respondents and Their Driving License Status I (Demographic Variables: Motor Park, Age, Gender, and Religion)

Table 1 shows more about the relationships between the drivers' demographic variables (motor park designation, age, gender and religion) and the driving license status (missing license, under-renewal, no license, and holder of license). The table shows further that 38.9% of the drivers in Mile2 motor park indicated that their driving license was missing, 37.7% indicated that their license was under renewal. Also, 37.5% of the drivers in Oshodi motor park with another 37.5% of the drivers in Mile 2 indicated that they do not have driving license while 35.3% of the drivers in Oshodi indicated that they have driving license. This implies that missing driving license was the most dominant driving license status and it is

most common among drivers in Mile 2 motor park. The results show the dearth of female bus drivers compared with male bus drivers in all the four motor parks the investigation was conducted.

The table shows that 47.2% of the driving license of drivers between the ages of 28-37years was missing, also, the driving license of 31.8% of the drivers who were between the ages of 28-37years was under renewal, 50.0% of the drivers between the ages of 28-37years do not have driving license at all, while only 32.2% of the drivers between the ages of 38-47years have driving license. This means that majority of the drivers (which is within 28-37years) do not have driving license.

Out of the four variables (Motor Park, Age, Gender, and Religion) presented in this section, only age has a significant relationship with driving license status of commercial drivers in Lagos and Abuja.

Relationship between Educational Attainment and Driving License Status											
	Response	Driving License Status									
		Missing		Under Renewal		No License		Holder of License		999	
		Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Educational Attainment	None	2	5.6	4	2.6	0	0.0	4	1.6	1	10.0
	Primary	17	47.2	61	39.6	4	25.0	48	18.8	4	40.0
	Secondary	8	22.2	60	39.0	9	56.2	138	54.1	4	40.0
	Tertiary	9	25.0	26	16.9	3	18.8	61	23.9	1	10.0
	999	0	0.0	3	1.9	0	0.0	4	1.6	0	0.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value =37.864, Critical Value =25.00, df =15, $\alpha = 0.001 @0.05$											
Relationship between Marital Status and Driving License Status											
Marital Status	Single	11	30.6	23	14.9	3	18.8	44	17.3	2	20.0
	Married	20	55.6	97	63.0	11	68.8	196	76.9	5	50.0
	Divorced	3	8.3	30	19.5	2	12.5	7	2.7	1	10.0
	Widowed	2	5.6	2	1.3	0	0.0	6	2.4	1	10.0
	999	0	0.0	2	1.3	0	0.0	2	0.8	1	10.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 63.055, Critical Value =31.41, df = 20, $\alpha = 0.000 @0.05$ Chi-Square computed Value = 63.055, Critical Value =31.41, df = 20, $\alpha = 0.000 @0.05$											
Relationship between Ethnicity and Driving License Status											
	Hausa	9	25.0	3	1.9	1	6.2	26	10.2	0	0.0
	Ibo	6	16.7	66	42.9	2	12.5	108	42.4	1	10.0
Ethnicity	Yoruba	17	47.2	82	53.2	13	81.2	115	45.1	7	70.0
	Others	4	11.1	3	1.9	0	0.0	4	1.6	1	10.0
	999	0	0.0	0	0.0	0	0.0	2	0.8	1	10.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 79.055, Critical Value =37.65, df =25, $\alpha =0.000 @0.05$											
Relationship between Ownership of Vehicle driven and Driving License Status											
Ownership of Vehicle driven	Company Vehicle	6	16.7	71	46.1	2	12.5	87	34.1	4	40.0
	Private Vehicle	24	66.7	57	37.0	7	43.8	139	54.5	1	10.0
	Group or Joint Vehicle	6	16.7	25	16.2	6	37.5	28	11.0	3	30.0
	None	0	0.0	0	0.0	1	6.2	0	0.0	0	0.0
	999	0	0.0	1	0.6	0	0.0	1	0.4	2	20.0
	Total	36	100.0	154	100.0	16	100.0	255	100.0	10	100.0
Chi-Square computed Value = 78.411, Critical Value =31.41, df = 20, $\alpha @0.05$											

Table 2: Showing the Relationship between Demographic Variables of the Participants and Their Driving License Status II (Demographic Variables: Educational Attainment, Marital Status, Ethnicity, and Ownership of the Vehicle)

Table 2 is the continuation to explain more about the relationships between the driver's demographic characteristics (education attainment, marital status, ethnicity and vehicle ownership)) and the driving license status (missing, under-renewal, no license, holder of license and void). This Table 2 further shows that 47.2% of the drivers with missing driving license were primary school certificate holders, 39.6% of the drivers whose driving license was under renewal were also primary school certificate holders, 56.2% of those drivers that drove without driving license were secondary school certificate holders and 54.1% of the drivers that hold driving license were also secondary school certificate holders. This shows that majority of the drivers with driving license were secondary school certificate holders.

The table shows that 55.6% of the drivers with a missing driving license were married, 63.0% of drivers with driving license under renewal were also married, 68.8% of the drivers without driving license were married as well, and 76.9% of the drivers that hold a driving license were equally married. This implies that majority of the married drivers hold a driving license.

The table further shows that 47.2% of the drivers with a missing driving license were Yoruba, 53.2% of the drivers whose driving license were under renewal were also Yoruba, 81.2% of the drivers who drove without driving license were also Yoruba and 45.1% of the drivers that hold a driving license were equally Yoruba. This shows that majority of the Yoruba drivers do not have driving license.

Lastly, 66.7% of those drivers with missing driving license driver their private vehicles, 46.1% of the drivers whose driving license is under renewal drove a company vehicle, 43.8% of those that drove without license drove their private vehicles while 54.5% of those that drove their private vehicle hold a driving license. This shows that the driving license of most drivers who drove company vehicles was under renewal.

The result concludes that all the four variables (Educational Attainment, Marital Status, Ethnicity, Ownership of the Vehicle) in this section has a significant relationship with the driving license status of the commercial drivers in Lagos and Abuja. From the results in the two table, it can be concluded that there is a significant relationship between demographic variables of the participants and their driving license status

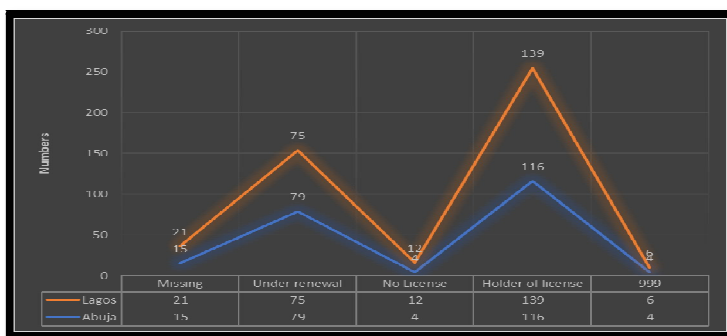


Figure 3: Driving License Status of Among Commercial Vehicle Drivers in Lagos and Abuja

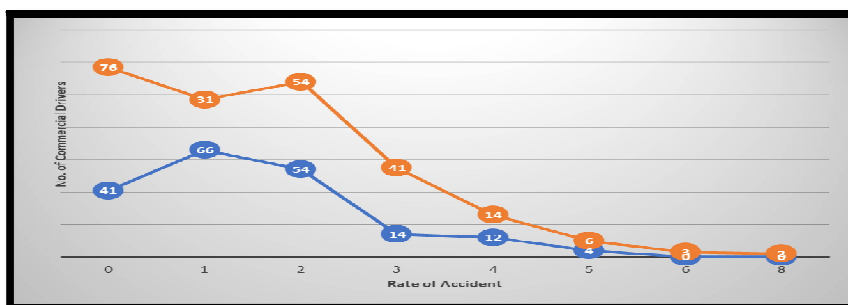


Figure 4: Rate of Road Traffic Accident among Commercial Vehicle Drivers in Lagos and Abuja

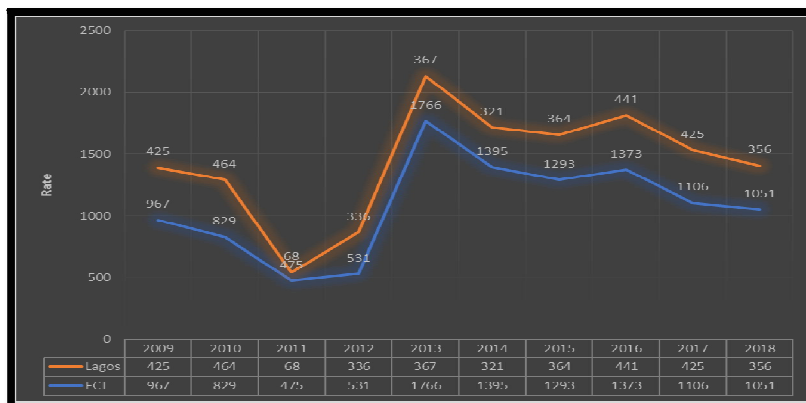


Figure 5: Total Accident Rate in FCT and Lagos between 2009 and 2018

- Objective Two: To test the relationship between participants driving license status and the rate of accidents in both the two survey sites (Abuja and Lagos)



Variable	B	Std. Error	Beta	T	Sig.
(Constant)	366.317	21.652		16.918	.000
Driving License Status	.075	.048	.665	1.544	.220

*Table 3: Linear Regression Result for Lagos Showing the Relationship between the Road Traffic Accident in Lagos and the Driving License Status of the Participants (R = .665<sup>a</sup>, Adjusted R2 = .257; F = 2.383; Sig. .220<sup>b</sup>; Df = 3)*

The table also shows a coefficient of correlations (R) of 0.665<sup>a</sup> and the adjusted R square of .257. This means that 25.7% of the variance in the rate of road accident in Lagosian the last 5 years is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant (F = 2.383; df = 1, 3; p > 0.05) and that other variables not included in this model may have accounted for the remaining variance. Hence, the result shows that Driving License Status of commercial drivers in Lagos has a significant effect on the rate of road accident among the commercial drivers in the state.

Variable	B	Std. Error	Beta	T	Sig.
(Constant)	1210.912	80.410		15.059	.001
Driving License Status	.162	.180	.461	.901	.434

*Table 4: Linear Regression Result for Abuja Showing the Relationship between the Road Traffic Accident in Abuja and the Driving License Status of the Participants (R = .461<sup>a</sup>, Adjusted R2 = -.049; F = .812; Sig. .434<sup>b</sup>; Df = 3)*

The table also shows a coefficient of correlations (R) of 0.461<sup>a</sup>, and the adjusted R square of -.049. This means that 4.9% of the variance in the rate of road accident in FCT Abuja in the last 5 years is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant (F = .812; df = 1, 3; p > 0.05) and that other variable not included in this model may have accounted for the remaining variance in the rate of road accidents. Hence, the result shows that Driving License Status of commercial drivers in FCT Abuja has a significant effect on the rate of road accident among the commercial drivers in the state.



*Figure 6: Participant Observation with FRSC Patrol Team in Abuja (Nigeria) on Driver'S License Surveillance*

#### 4. Discusión

The aim of this section is to explain the two objectives of this study in details. The first objective is to show the relationship between participants' demographic variables (motor park designation, age, gender and religion) and the driving license status (missing, under-renewal, no license, holder of license). The second objective is to test the relationship between participants driving license status and the rate of accidents in both the two survey sites (Abuja and Lagos).

##### 4.1. Realization of the First Objective

Table 1 is where tabulation is used to explain the symmetric arrangement of data collected during the survey to quantify the relationships and probabilities between the demographic and license status variables. The findings show that 38.9% of the drivers in Mile 2 motor park indicated that their driving license was missing, while 37.7% indicated that their license was under renewal. Driving license is an important document a driver must hold to drive a vehicle and if drivers in the park and not in possession of certification to drive, then it signifies ineffectiveness of traffic laws compliance. In another shocking finding is the numbers of drivers without driving license in Oshodi motor park (37.5%) and Mile 2 motor

park (37.5%). Previous study indicates that unlicensed driving is linked with high risk driving behaviour (Watson et al, 2011). The most worrisome about this that according to the data 50% of the whole participant 'drivers' investigated in all the four motor parks that are between the age of 28 and 37 years do not have driving licence all. This should be a great concern for law enforcement agents in order to reduce the risk of crashes in our roads.

Dearth of female bus drivers is noticed and reflected in the Lagos data. The traffic practitioners should encourage female bus drivers as a way of exploiting their knowledge and driving skills, As women are not exempt from driving and transportation, their sexual harassment and degradation on the wheel should be major concern of the concerned authority towards achieving a society that offers equal standards for all gender (Ercan&Ulug, 2015).Chipman et al (1992) in their study show that men have double the number of crashes (per 1,000 drivers) than women. In another study on attitudes and awareness among drivers in Libya, (Yahia et al, 2014) showed that age and gender have significant influence on attitudes and knowledge of traffic laws but not by a large margin.

The table shows that 47.2% of the driving license of drivers between the ages of 28-37years was missing, also, the driving license of 31.8% of the drivers who were between the ages of 28-37years was under renewal, 50.0% of the drivers between the ages of 28-37years do not have driving license at all, while only 32.2% of the drivers between the ages of 38-47years have driving license. To finalise the first objective, out of the four variables (motor park, age, gender, and religion) presented in this section, only age has a significant relationship with driving license status of commercial drivers in Lagos and Abuja. This is contrary to the previous study on commercial bus drivers in Osun State (Nigeria) where (Olonade, 2015; Malomo& Yusuf, 2015) concluded that both age and driving experience of a driver does not significantly determine his likelihood of having an accident. Meanwhile, a recent study in Ogun State, Nigeria admits that driving behaviour is statistically influenced by years of driving experience (Odufuwa et al, 2019).

Table 2 further explains more about the relationships between the driver's demographic characteristics (education attainment, marital status, ethnicity, and vehicle ownership)) and the driving license status (missing, under-renewal, no license, and holder of license. The survey data obtains in Lagos and Abuja shows that most of the drivers with driving license were secondary school certificate holders which amounted to 56.2% in the motor parks. Besides, 68.8% of the participants without driving license were married and majority of the Yoruba tribes do not hold driving licenses as the time of investigation. Okafor et al (2013) explains in their study that the oldest, least educated and least experienced drivers had poor level of knowledge for driving dexterity. More previous studies show that some illiterates drivers cannot read road sign and markings correctly (Ipingbemi, 2008), and other less educated double the risk of accidents with 3,5 times with high-school certificate holders are four times more likely to bribe a policeman when caught violating traffic laws (Akalanka et al, 2012)

Meanwhile, it is also deduced that 66.7% of drivers with missing driving license drive their private commercial vehicles, and 46.1% of the drivers whose driving license is under-renewal drive company vehicles. All these explain negligence and in-effectiveness of the traffic laws enforcement. This is another area where road traffic stakeholders are to collaborate with the concerned traffic enforcement agents and authority.

Concluding the first objective, result shows that all the four variables (Educational Attainment, Marital Status, Ethnicity, Ownership of the Vehicle) in this section has a significant relationship with the driving license status of the commercial drivers in Lagos and Abuja. From the results in the two table, it can be concluded that there is a significant relationship between demographic variables of the participants and their driving license status.

#### 4.2. Realization of the Second Objective

The second objective is to test the relationship between participants driving license status (missing license, under-renewal, no license, and holder of license) and the rate of 5 years road traffic accidents in both the two survey sites (Abuja and Lagos). Two tables are used.,

Table 3 demonstrates a coefficient of correlations (R) of 0.665<sup>a</sup>and the adjusted R square of .257. This means that 25.7% of the variance in the rate of road accident in Lagosian the last 5years is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant (F = 2.383; df =1, 3; p>0.05) and that other variables not included in this model may have accounted for the remaining variance. Hence, the result shows that Driving License Status of commercial drivers in Lagos has a significant effect on the rate of road accident among the commercial drivers in the state. Previous research in Nigeria on accident and level of intelligence concludes that driving activity requires some level of intelligence for safe journeys and arrivals to destinations (Stephens & Ukpere,2011)

Tables 6 shows a coefficient of correlations (R) of 0.461<sup>a</sup>, and the adjusted R square of -.049. This means that 4.9% of the variance in the rate of road accident in FCT Abuja in the last 5years is accounted for by all the Driving License Status. The contribution of the independent variable to the dependent variables was not significant (F = .812; df = 1, 3; p>0.05) and that other variable not included in this model may have accounted for the remaining variance in the rate of road accidents. Hence, the result shows that Driving License Status of commercial drivers in FCT Abuja has a significant effect on the rate of road accident among the commercial drivers in the state. This development explains the pervasive ignorance of basic traffic rules and regulations is widespread among both illiterate and educated Nigeria road transport users (Ogwude, 2012)

In conclusion with all the findings from this study, it is evident and support the study that characterization of driving behaviour increases crash risk and reorientation of drivers with driving models to meet up with smart cars in smart environment ((Fugiglando et al, 2017).

## 5. Strengths and Limitations of the Study

This new measuring adopted tool called LoMICs-DBQ is an expected development that will give new insights and add value to transport sector and specialists, key stakeholders, academia, and policymakers over the old 'westernized' measuring tools that does not taken adequate consideration for low-and medium-income countries with complex characteristic in socio-economic, cultural, political and religion beliefs. Each of these five adopted tools have been tested and used in terms of validity and variability in behavioural investigations.

This study only relied on accidents data facilitated by the Federal Road Traffic Commission (FRSC) and the National Bureau of Statistics (NBS) in Nigeria and no data was collected from the Police and hospitals to avert complicity and duplication of data. Self-reported data used in this investigation may be subjected to recall bias (Woodward, 2005). This is because most people drive in Nigeria without driving license might lied, as it was established in the motor parks investigated with most drivers with missing and without licenses all because of ineffective enforcement. Despite ethical approval and with consent of the motor parks union leaders, it was a herculean task in getting hold of the respondents as the questionnaire was administered during their working hours in Lagos.

## 6. Conclusión And Recomendación

This research results have important implications for policy makers to intervene on driving licenses standardized education and training, license procurement and strict enforcement of obligatory license permit to reduce risk and unsafe behaviour on the roads. The present confusing, corrupting, and strenuous licensing procurement processes should be reviewed, simplified, and standardized with involvement of stakeholders, drivers' union and national examination body which will be given responsibility of conducting and supervising driving test, practical's and procurement.

The first recommendation is to make driving license test and practical a compulsory national examination to be organized and conducted with trio of FRSC, National Transport Institute/University and Certified Driving Schools quarterly in a year and to be written in English or other chosen approved Nigerian regional languages. Secondly, road traffic education should be introduced in both the primary and junior secondary schools' curriculum (Sumaila, 2013) and with the parents and guardian's collaboration on driving training and certification. The lead agency (FRSC) should encourage female bus drivers as previous study indicated that men have double the number of crashes than women (Chipman et al 1992) The road traffic safety authority should incorporate and carry along the National Union of Road Transport Workers (NURTW) that responsible for the placement and discipline of drivers (Ipingbemi, 2008) in transportation policies. The lead agency (FRSC) should introduce better deterrent measures should be taken against traffic laws offenders and possibility of a strong professional identity within the Nigerian Police Force (Ogeleyinbo, 2015). For security purpose, the lead agency should embark on a digitalized plastic 'credit card type' for greater protection against forgery and illegal procurement of driving license. This countermeasure will ease and facilitate the mobility of drivers across Africa for unity, security, and socio-economic development.

## 7. Future Research

The findings from this study highlights the serious need to investigate driver's attitudes and fatalistic beliefs towards safety and this make me to suggest for more elaborate researches on driver's demographic variables as it relates to leading drivers to make more risks on the wheel. The future research on standardized licensing procurement and administrative zero-corruption should be intensified in order to make the road safe and secured for all road's users.

## 8. References

- i. Adom Dickson; Hussein; Kamil Emad and Agyem, Adu Joe (2018): Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research Volume 7 Issue, January-2018, ISSN No 2277-8179. Agbonkhese, O; Yisa, G.L; Agbonkhese, E.G; Akanbi, D.O; Aka, E.O; Mondigha, E.B (2013): Road Traffic Accidents in Nigeria: Causes and Preventive Measures, Civil and Environmental Research. ISSN 2224-5790 (Paper), ISSN 2225-0514.
- ii. Akintoye, A. (2015): Developing Theoretical and Conceptual Frameworks. Jedm.oauiife.edu.ng>uploads>2017/03/07 (assessed 2017 February 22) IN: Adom Dickson; Hussein; Kamil Emad and Agyem, Adu Joe (2018): Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research Volume 7 Issue, January-2018, ISSN No 2277-8179.
- iii. Akalanka E.C, Fujiwara T, Desapriya E, Peiris D.C, Scime, G (2012): Socio-demographic Factors Associated with Aggressive Driving Behaviours of 3-Wheeler Taxi Drivers in Sri Lanka. *Asi Pac J Public Health* 2012; 24:91-103. <http://dx.doi.org/10.1177/1010539510376304> IN: Rehman, A,Imran,S,Hassan, M, Akhlaq, A, Iqbal,S, Beg, F, Zahid,G, Khalid,H,Qadir,F,S, Murad, H,F,Baloch, N.U.A, Awais, M, and Saleem, S (2015): Taxi Drivers'Attitudes Toward Road Safety in Pakistan. *The Royal Society for Public Health* 129 (2015) 818-821
- iv. Blows, S., Iver, Q.R., Ameratunga, S., Connor, L. J., Woodward, and Norton, R (2005): Unlicensed Drivers and Car Crash Injury. *Traffic Injury Prevention* October, 2005 (Online) Available from [www.researchgate.net/publication/7673699](http://www.researchgate.net/publication/7673699) (Accessed 2020-03-20) Source: PubMed
- v. Braimah, O.J., Omaku, E.P., Osanaiye, A.P., Saheed, K.Y., (2014): Descriptive analysis of road traffic crashes in federal capital territory, Abuja, Nigeria. *The International Journal of Science &Technoledge* (ISSN 2321-919X) www.theijst.com 59 Vol. 2 Issue 12 November, 2014
- vi. Camp, W. G. (2001): Formulating and Evaluating Theoretical Frameworks for Career and Technical Education Research. *Journal of Vocational Education Research*, 26 (1), 27-39. IN: Adom, Dickson; Hussein; Kamil Emad

- and Agyem, Adu Joe (2018): Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research Volume 7 Issue, January-2018, ISSN No 2277-8179.
- vii. Chidoka, S (2011): Transportation and Insurance Policy in Nigeria: A paper presented held at Ayo Ajomo Lecture Theatre, University of Lagos Akoka, January 13.
- viii. Chinebuli Uzundu, Jamson, Samantha and Lai, Frank (2018): Investigating Unsafe Behaviours in Traffic Conflict Situations: An Observational Study in Nigeria
- ix. Chipman, M.L., MacGregor, C. G., Smiley, A.M., and Lee-Gosselin, M (1992): Time Vs. Distance as Measures of Exposure in Driving Surveys. *Accident Analysis and Prevention*, 24:6, 679-684. IN: Sex Differences in Driving and Insurance Risk: An Analysis of the Social and Psychological Differences between Men and Women that are relevant to their Driving Behaviour. Prepared by: The Social Issues Research Centre, August, 2004 [www.sirc.org](http://www.sirc.org)
- x. CNN-Inside Africa : (2017): The United Nations World Population Prospects in 2017: Half of world's population growth is likely to occur in Africa.
- xi. Deffenbacher, J.L., Oetting, E.R., and Lynch, R.S. (1994): Development of a Driving Anger Scale. *Psychological Reports*, 74, 83-91. In: Davey, J., Freeman, J., and Wisart, D. A Study Predicting Self-Reported Crashes Among Fleet Drivers. Peer Reviewed Paper. (Online) Available from <http://acrs.org.au/files/arsrpe/RS060046.pdf> 03/06/2017
- xii. Deme, Debela (2019): Review on Factors Causes Road Traffic Accident in Africa *Journal of Architecture and Construction*. Volume 2, Issues 3, 2019, PP 41-49.
- xiii. Dong Stauber (2017): Statistical Package for the Social Sciences (SPSS-IBM). Bayesian Independent Sample Inference Test. Published on July 18, 2017 / updated on November 6, 2017. <https://developer.ibm.com/predictiveanalytics/2017/07/18/spss-25-subscription-summary/> (Online) Assessed on 11/05/2020
- xiv. Ercan, Nilufer and Ulug, Melis Ozden (2015): 'You See That Driver' I Bet That's a Woman!: A Social Psychological Approach to Understand Sexism in Traffic. International Conference on Knowledge and Politics in Gender and Women's Studies. METU GWS Conference 2015.
- xv. Eze, B. (2010): Road Traffic Accidents in Nigeria: A Public Health Problem.
- xvi. Fugiglando, U, Massaro, E., Santi, P., Milardo, S., Abida, K., Stahlmann, R., Netter, F., and Ratti, C (2017): Driving Behaviour Analysis through CAN Bus Data in an Uncontrolled Environment. arXiv:1710.04133v1 [cs.LG] 9 Oct 2017
- xvii. Grant, C and Osanloo, A. (2010): Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for 'House'. *Administrative Issues Journal: Connecting Education, Practice and Research*, Pp.12-22. DOI: 10.5929/2014.4.2.9 IN: Adom Dickson; Hussein; Kamil Emad and Agyem, Adu Joe (2018): Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research Volume 7 Issue, January-2018, ISSN No 2277-8179.
- xviii. FRSC (2012): Federal Road Safety Corps. Nigeria.
- xix. Glendon, A.I & Litherland, D.K. (2001): Safety Climate Factors, Group Differences, and Safety Behaviour in Road Construction. *Safety Science*, 39, 157-188.
- xx. Gonczi, Andrew (1994): Competency Based Assessment in the Professions in Australia. Article in *Assessment in Education Principles Policy and Practice*. January 1994. DOI: 10.1080/0969594940010103 IN: Jariot Garcia, Merce and Rodriguez Parron, Montserrat (2007): La Formación por Competencias Profesionales. Evaluación y Mejora de las Competencias del Profesor de Formación vial desde un Modelo de Cambio de Actitudes (Formation through Professional Competences, Evaluation and Improvement of the Competences of Road Safety Teachers). Facultad de Educación. UNED. Educación XX1. 10, 2007 (Online) Available from: <https://www.redalyc.org/pdf/706/70601007.pdf>
- xxi. Ipingbemi, Olusiyi (2008) : Socio-economic Characteristics and Driving Behaviour of Commercial Drivers in Southwestern Nigerian Cities. CODATU XIII.
- xxii. Iyanda, A.E. (2018): Geographic Analysis of Road Accident Severity Index in Nigeria. *International Journal of Injury Control and Safety Promotion*, 28, 1-10. IN: Siyan, Peter, Oyeyemi, Boboye, and Agunbiade, Olabode (2019): Road Accident Analysis and Prevention in Nigeria: Experimental and Numerical Approaches. *International Journal of Advanced Scientific Research & Development*. Vol. 06, Ver.1, Jun'2019, pp. 01-12-
- xxiii. Jariot Garcia, Merce and Rodriguez Parron, Montserrat (2007): La Formación por Competencias Profesionales. Evaluación y Mejora de las Competencias del Profesor de Formación vial desde un Modelo de Cambio de Actitudes (Formation through Professional Competences, Evaluation and Improvement of the Competences of Road Safety Teachers). Facultad de Educación. UNED. Educación XX1. 10, 2007 (Online) Available from: <https://www.redalyc.org/pdf/706/70601007.pdf>
- xxiv. Jungu-Omara, O.I and Vanderschuren, A.W.J. M (2006): Ways of Reducing Accidents on South African Roads. *Proceedings of the 25<sup>th</sup> Southern African Transport Conference (SATC 2006)* 10-13, July 2006. Pretoria, South Africa.
- xxv. Labinjo M, Julliard C, Kobusingye O. C, Hyder A. A (2010): Socioeconomic Impact of Road Traffic Injuries in West Africa: Exploratory Data from Nigeria. *Inj. Prev*, 2010;16:389-392.
- xxvi. Lajunen, T., & Summala, H. (1995): Driving Experience, Personality, and Skill and Safety Motive Dimensions in Drivers' Self-Assessments. *Personality and Individual Differences*, 19 (3), 307-318.

- xxvii. Likert, Rensis (1932): A Technique for the Measurement of Attitudes: Archives of Psychology. No. 140 Volume 22 (1932-33) Pp.555 June 1932. New York.
- xxviii. Malomo, I. Bolajoko and Yusuf, O. Maryam (2015): Well-Being of Lagos Urban Mini-Bus Drivers: The Influence of Age and Marital Status. World Academy of Science, Engineering and Technology International Journal of Social, Behavioural, Educational, Economic, Business and Industrial Engineering Vol:9, No:11, 2015
- xxix. Mayhem, R. Daniel; Simpson, M. Herbert; Williams, F. Allan and Ferguson, S. Susan (1998): Effectiveness and Role of Driver Education and Training in a Graduated Licensing System. Journal of Public Health Policy. 19, 51-67 March 1998
- xxx. Molina, G.J., Sanmartin, J., Keskinen, E (2013): Driver Training Interests of Spanish Sample of Young Drivers and its Relationship with their Risky Driving Self-Assessment Skills. Accident Analysis & Prevention, 52, 118-124.
- xxxi. Nantulya V.M and Reich, M.R (2002): The Neglected Epidemic: Road Traffic Injuries in Developing Countries. BMU 2002: 324:1139
- xxxii. NBS (2018): National Bureau of Statistics, Abuja Nigeria.
- xxxiii. NPCN, (2006): National Population Census of Nigeria.
- xxxiv. Odufuwa, Olufemi Bashir, Salisu, Obafemi Umar, Fasina, Oluwagbemiga Nathaniel, Ogunseye, Oluwaseun Nathaniel, Omoniyi, Samuel Sunday (2019): Driving Behaviour of Taxi Drivers towards Sustainable Public Road Transport in Ogun State, Nigeria Ghana Journal of Geography Vol. 11 (2), 2019 pages 199-226
- xxxv. Ogeleyinbo, Clement (2015): A Study of Drink Driving in Lagos: From the Perspectives of Law Enforcement Officers. PhD thesis, Middlesex University. Available from Middlesex University's Research Repository at <http://eprints.mdx.ac.uk/18504>
- xxxvi. Ogwude, C. I (2012): Influence Driver Behaviour on Nigerian Roads. JORIND 10 (3) ISSN 1596-8308
- xxxvii. Okafor I P, Odeyemi K A, Dolapo D C (2013): Knowledge of Commercial Bus Drivers about Road Safety Measures in Lagos, Nigeria. Ann Afr Med 2013; 12:34-9
- xxxviii. Olonade, O. Z. (2015): Age, Experience and Risk Perception of Commercial Bus Drivers in Osun State. Studies in Sociology of Science. Vol.6. No 1, 2015, pp.6-9
- xxxix. Olumide, A.S., Oloruntoba, O.S., and Otasowie, I. (2014): An Analytical Framework for Vision Testing in Driving License Allocation in Nigeria. Computer Science. International Journal of Computer Applications
- xl. Oyeyemi, Boboye (April 2018): Harmonization and Digitalization of Nigeria Driver's License (NDL) A presentation delivered at 4<sup>th</sup> Annual ID4 Africa International Conference. 24-26, April 2018
- xli. Oyeyemi, Boboye (2018): Road Safety Management Policy and Strategy Development: The Nigerian Experience. July 2018 by Boboye Oyeyemi PhD Corp Marshal of the Federal Road Safety Corps, Abuja, Nigeria.
- xl. Parker, D., Stradling, S.G., and Manstead, A. (1996): Modifying Beliefs and Attitudes to Exceeding the Speed Limit: An Intervention Study Based on the Theory of Planned Behaviour. Journal of Applied Social Psychology, 26, 1-19. In: Davey, J., Freeman, J., and Wisart, D. A Study Predicting Self-Reported Crashes Among Fleet Drivers. Peer Reviewed Paper. (Online) Available from <http://acrs.org.au/files/arsrpe/RS060046.pdf> 03/06/2017
- xliv. Reason, J., Manstead, A., Stradling, S., Baxter, J., & Campbell, K (1990): Errors and Violations on the roads: A real distinction? Economics, 33, 1315-1332.
- xl. Road Safety Authority (RSA) (2018): Rules of the Road. The O'Brien Press Ltd. [www.obrien.ie](http://www.obrien.ie)
- xlvi. Sagberg, Fridulv (2013): Accidents, Driving Behaviour and Safety Attitudes among Novice Drivers: Effect evaluation of revised regulations for category B driver training in Norway. TOI Report 1287/ 2013
- xl. Sheriff, M.A (2009): Traffic Education and Safety in Nigeria. Nitours Journal Vol. II. Kano. In: Road Traffic Accidents in Nigeria: Causes and Preventive Measures. Agbonkhese, O. Yisa, G.L., Agbonkhese, E.G. Akanbi, D.O., Aka, E.O., Mondigha, E.B. Civil and Environmental Research. Vol. 3, No.13, 2013. [www.iiste.org](http://www.iiste.org)
- xl. Stephens, S.M and Ukpere, J.W (2011): Accidents and Level of Intelligence: A View from the Nigeria Experience J Hum Ecol. 35 (2) : 75-84
- xl. Sumaila, AbduGaniyu Femi (2013): Road Crashes Trends and Safety Management in Nigeria
- i. Journal of Geography and Regional Planning. Vol 6 (3). Pp. 53-62. May 2013.
  - ii. The Motor Car Act (1903): The London Gazette, Number 27589, Tuesday, August 18, 1903.(Online) Available from <https://www.thegazette.co.uk/London/issue/27589/page/5211/data.pdf>
  - iii. UNO (1949): Convention on Road Traffic. Chapter XI: B 19<sup>th</sup> September 1949.
  - iii. UNO (1968): United Nations Conference on Road Traffic. Vienne, 8 November 1968. Chapter XI. Transport and Communications B. Road Traffic
- liv. Watson, B. C, Armstrong, K.A. Watson, A., Wilson, A & Livingstone, K (2011): A Roadside Survey of Unlicensed driving in Queensland. In Proceedings of Australian Road Safety Research, Policing and Education Conference 2011, Perth Convention and Exhibition Centre. Perth, WA
- lv. WHO (2020): Road Traffic Injuries 7 February, 2020 (Online) Available from <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries> WHO (2018): World Health Organization Factsheets,
- lvi. WHO:(2014): World Health Organization: World Report on Road Traffic Injury Prevention, 2014, <http://whqlibdoc.who.int/publications/2004/9241562609.pdf>
- lvii. Williams, F. Allan: Daniel, R and Mayhew, M. A (2008): Graduated Licensing and Beyond, American Journal of Preventive Medicine. Volume 35, Issue 3, Supplement, September 2008, Pages S324-5333
- lviii. Woodward M. (2005): Epidemiology: Study Design and Data Analysis. Chapman & Hall / CRC Press, Boca Raton. IN: Blows, S., Iver, Q.R., Ameratunga, S., Connor, L. J., Woodward, M and Norton, R (2005): Unlicensed Drivers and

Car Crash Injury. *Traffic Injury Prevention* October, 2005 [www.researchgate.net/publication/7673699](http://www.researchgate.net/publication/7673699)  
Source: PubMed

- lix. Yahia, M.A.H, Ismail, A, Albrka, I.S, Almeselati, S.A. and Ladin, A.M. (2014): Attitudes and Awareness of Traffic Safety among Drivers in Tripoli-Libya. *Regional Journal of Applied Sciences, Engineering and Technology* 7 (24):5297-5303, 2014