

Drivers Distraction and Road Traffic Crashes in Port Harcourt Metropolis, Rivers State, Nigeria

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Abstract— The study examined the drivers' distraction and road traffic crashes in Port Harcourt Metropolis, Nigeria. The study made use of three hundred and eighty six copies of questionnaire administered to the commercial vehicle operators in the six traffic zones in Port Harcourt Metropolis using a random sampling technique. Descriptive statistics were used to explain the results while inferential statistics (Spearman's Rank Correlation) were used to determine the relationship between drivers' distraction and traffic crashes. Findings showed that majority (97.4%) of the respondents were males, majority (39.1%) were within the age bracket of 25-34 years while 41.7% had driving experience between 3 to 5 years and majority (36.8%) had driving training from the family. Furthermore, types of drivers' distraction common in the study area included making/receiving calls (59.9%), phone texting (66%), in-vehicle conversation (68.2%), adjustment of Cd/radio (81.9%), eating/drinking (80.1%), outside vehicle distraction (71.2%) and in-vehicle gadgets (64.3%). However, the effects of drivers' distraction were accidents (42.3%), near crash (61.7%), issues with traffic officials (47.4%), poor turning in heavy traffic (63.4%), poor turning in heavy traffic (63.4%), misuse of lanes (63.4%) and improper indication (63.5%). Correlation analysis showed that road traffic crashes had significant relationships with making/receiving calls ($r = -0.164$; $p < 0.05$) and in-vehicle gadgets ($r = -0.102$; $p < 0.05$). The study therefore recommended among others that effective training procedures are required before issuing licence to motorist in order to control the rate of drivers' distractions; and pro-active measures and effective control practices are essential should be put in place to promote safety on the road and reduce road traffic accidents.

Index Terms:- Drivers' distraction, Traffic crashes, Commercial vehicle operators, Port Harcourt, Nigeria

I. INTRODUCTION

Driver distraction which is referred to the time when the action of a task is suspended because the person's focus was captured by something else or the mental focus has shifted has been influencing driving performance and increase vehicle accidents (Talbot et al., 2009). Globally, road traffic crashes (RTCs) are accountable for a significant number of overall injury and death rate in developing countries as motorist are more vulnerable to road accidents and also stand as an important group to reducing road traffic crashes (Peden and Hyder, 2002).

In recent years, distraction while driving has posed as a major contributor for road accidents in most motorized

countries including Nigeria. As more wireless communications, entertainment devices and driving assisting gadgets increase rapidly in number in the market, the number of distraction related crashes is hoped to increase. Therefore, to complete the secondary task successfully and to maintain safe driving, drivers often compensate for decreased attention to driving by increasing their safety envelope, i.e. speed reduction and longer headways (Anderson, 2013). However, this strategy is not always successful. Drivers fail to fully compensate for their inattention to driving because they often underestimate the risk associated in performing particular secondary tasks (Lesch and Hancock, 2004). In these cases, drivers fail to divide their attention between driving and secondary tasks adequately. Distraction while driving involves specific task that contends for the driver's attention and can possibly lead to diminished capacity to attend to the roadway. Managing distractions while driving in Port Harcourt city has posed as a major challenge as it is the major cause of auto crash. Drivers' distraction is an important risk factor for road traffic injuries. Distraction is high on Nigeria roads as drivers are prone to anxieties of different kinds. In addition to these, a number of drivers do no regard speed limits.

Driver distraction has serious impact on driving performance which causes drivers take their eyes off the road, hands off the steering wheel, their minds off the road, longer reaction time to respond or react to unexpected occurrences, confrontational driving, unsafe lane changing, sudden acceleration/deceleration, blaring car horns, rude gestures and unsafe lane changing, slower reaction time, poor perception, reduced headway, and poor eye glance (Papantoniou et al., 2015). All these can divert a driver's attention thereby causing actual or near road crash. Studies show that the proportion of drivers using mobile phones while driving has increased over the past 5-10 years, ranging from 1% up to 11% with the use of hand free mobile phones as the highest (Stutt et al., 2013). On the major roads of Port Harcourt City like the Aba road, Ikwerre road, and East-west road, drivers' distraction is thought to play a role in 20-30% of all road collision (Road Traffic Authority, 2010). Studies on drivers' distraction have been done but little is known on its influence on traffic crashes in Port Harcourt Metropolis quantitatively. It is against the background that the present study examined the assessment of drivers' distraction and their effects on road traffic crashes in Port-Harcourt City.

II. MATERIALS AND METHODS

The study was carried out in Port Harcourt Metropolis, Rivers State, Nigeria. Port Harcourt is located in latitudes

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between 4o 44' 58.8''N and 4o 56' 4.6''N and longitudes between 6o 52' 7.2''E and 7o 7' 37.7''E (Figure 1). Port Harcourt experiences a tropical humid climate with lengthy and heavy rainy seasons and very short dry seasons. The city is endowed with abundant sunshine and the average temperatures are between 25°C-28°C in the city (Ogbonna et al., 2007). Port Harcourt is dominated by low lying coastal plains, which structurally belongs to the sedimentary formation of the recent Niger Delta, with an elevation less than 15.24m (Oyegun and Adeyemo, 1999; Chiadikobi et al., 2011). Drainage of the study area is poor because of the presence of many surface water and heavy rainfall between 2000mm and 2400mm (Mmom and Fred-Nwagwu, 2013). However, Bonny River, New Calabar River, creeks and streams drain Port Harcourt Metropolis and all enter into the Atlantic Ocean through estuaries (Chiadikobi et al., 2011). The study adopted the descriptive survey research design. A total of three hundred and eighty six copies of questionnaire was administered to the commercial vehicle operators in the six traffic zones in Port Harcourt Metropolis (Table 1). Descriptive statistics in form of frequency and percentages were used for data analysis. Inferential statistics in form of Spearman's Rank Correlation was used to determine the relationships between drivers' distraction and traffic crashes at 0.05 significant levels. Statistical Package for Social Sciences (SPSS) version 20.0 was used for the analysis.

Table 1: Traffic routes network zones in Port Harcourt Metropolis

Traffic Zones	Traffic Routes/ Routes of Public Transportation
1	-Borokiri - Eastern Bye Pass Roundabout- Lagos Bus stop -Old GRA- Waterlines - Garrison - Ogbunabali-Eastern Bye pass round about
2	-Abuloma - Elelenwo - FGGC - Mothercat - Trans-Amadi - Odili road - Nwaan junction - YKC/Slaughter - Woji - Elelenwo
3	-UTC junction - Mile 1 - Mile 3 - Mile 1 - UST axis - Elechi beach axis - Agip roundabout-Agip - Mgboshimini - Ada George Elioparanwo/Iwofe/Wimpey – Wimpey-Ogbogoro
4	-Rumukurushi - Shell - Rumuomasi - Stadium road- Eleme junction - Oyigbo - Rumuebulu - Rumukalango - Igbo Etche - Rumuakuru-Oil Mill junction - Eleme junction-East-West road-Rumuodara-Tank-Eneka - Elioju - Rumuokoro -Eleme junction - Refinery junction - Onne/Trailer Park
5	-Ikoku junction - D/Line - G.R.A. axis - Presidential Rumuola - Orazi - Rumuokwuta - Psychiatric - (Checking point) Mgbuoba - Rumuigbo junction
6	-Rumuokoro - Rumuaholu - Rumuosi - Alakahia - Uniport - Aluu - Choba - Rumuigbo-Rumuokoro - Rumuodumaya - Rukpoku - Igwurita - Umuogwu – Isiokpo

Source: Rivers State Government (RSG), (2014)

III. RESULTS

A. Socio-Economic Characteristics of Respondents

The socio-economic characteristics of respondents are presented in Table 2. The distribution showed that 97.4% of the respondents were male drivers while the remaining 2.6% of the respondents were female drivers. The analysis therefore revealed that males were more than females. The age distribution of respondents showed that 10.4% of the respondents falls between 18-24 years of age, 39.1% were between 25-34 years of age, 22.8% were between 35-45 years of age, while the remaining 22.7% of the respondents were 46 years and above. The age distribution characteristics of the study showed that the respondents for the study were all qualified to be drivers, because none is below 16 years of age. Analysis of marital status of respondents revealed that 25.6% of the respondents were singles, 48.7% were married, 20.2% were divorced, while the remaining 5.4% were widowed. Thus, most of the sampled respondents were married among drivers in the study area. Level of education among respondents showed that 19.4% of the respondents had primary education, 53.9% of the respondents had secondary education, 20.7% of the respondents have tertiary education, while 6% belonged to other groups that might comprise of secondary school drop outs amongst others. This shows that the respondents were literate. Analysis showed that those drivers with at least 6 months to 2 years' experience were

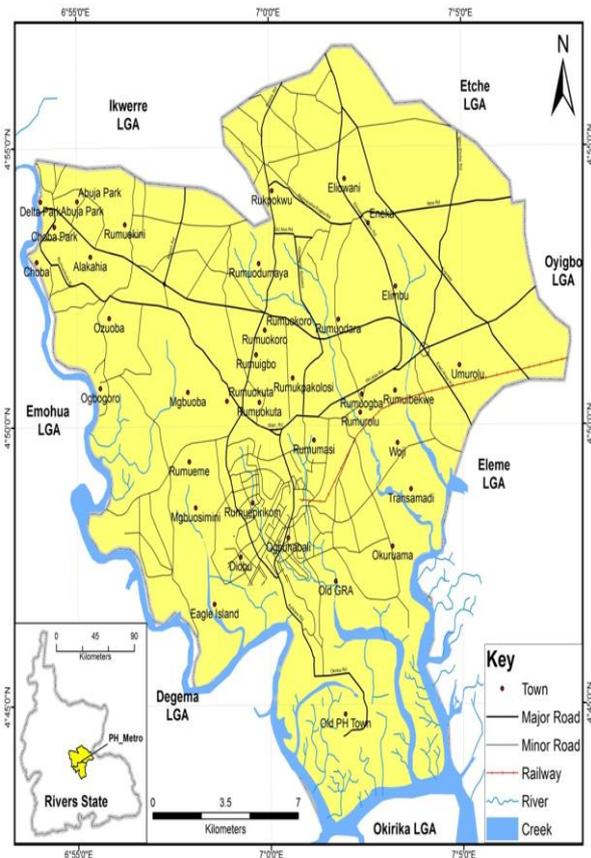


Fig. 1. Port Harcourt City

29.3% from the total respondents, 41.3% of the respondents had between 3-5 years driving experience, 27.2% of the respondents had 6 - 7 years driving experience, while the remaining 1.8% of the respondents had above 7 years of experience. Thus, the majority of respondents sampled for the study had between 3 - 5 years driving experience.

Driving school	76	19.7
Family	142	36.8
Friends	104	26.9
Others	64	16.6
Total	386	100.0

Table 2: Socio-economic characteristics

Gender	Frequency	Percentage (%)
Male	376	97.4
Female	10	2.6
Total	386	100.0
Age (Years)	Frequency	Percentage (%)
18-24	40	10.4
25-34	151	39.1
35-45	88	22.8
46 and Above	107	27.7
Total	386	100.0
Marital Status	Frequency	Percentage (%)
Single	99	25.6
Married	188	48.7
Divorced	78	20.2
Widowed	21	5.4
Total	386	100.0
Educational Status	Frequency	Percentage (%)
Primary Education	75	19.4
Secondary Education	208	53.9
Tertiary Education	80	20.7
Others	23	6.0
Total	386	100.0
Years of Driving Experience	Frequency	Percentage (%)
6 months-2 years	113	29.3
3-5 years	161	41.7
6-7 years	105	27.2
Above 7 years	7	1.8
Total	386	100.0

B. Acquisition of Drivers Licence and Driving Training

The number of drivers that have acquired their drivers' licence and their mode of driving training are presented in Table 3. The analysis showed that 73.8% of the respondents had drivers' license while 26.2% of the respondents did not. Those that could not provide their own was attributed to either they had expired or was not in use at the time of the study but majority had their drivers' license with them while driving. The analysis on the mode of driving training revealed that 19.7% of the respondents went to driving school to learn how to drive, 36.8% acquired their driving knowledge from families, 26.9% learnt how to drive from friends while 16.6% acquired training from other means. Thus, the study revealed that majority of the respondents acquired their driving knowledge from family members.

Table 3: Acquisition of Drivers' Licence and Mode of Driving Training

Drivers' License Acquired	Frequency	Percentage (%)
Yes	285	73.8
No	101	26.2
Total	386	100.0
Mode of Driving Training	Frequency	Percentage (%)

C. Types of drivers' distraction in Port Harcourt Metropolis

The perception of the types of drivers' distraction in Port Harcourt Metropolis is presented in Table 4. Findings showed that 59.9% of the respondents are distracted very often when they make/receive phone calls at driving while the remaining 40.1% of the respondents are rarely distracted by making/receiving phone calls. However, the analysis revealed that 34% of the respondents rarely engage in sending/reading text messages at driving while 66% agreed that they are guilty of it. It was also revealed that 68.1% of the respondents engaged in in-vehicle conversation while the remaining 31.9% of the respondents rarely or never engaged in it. Furthermore, 18.1% of the respondents rarely or never engaged in adjustment of Cd/tuning of radio at driving while 81.9% often times engaged in it. Findings revealed that 19.9% of the respondents rarely or never engaged in eating/drinking at driving while the 80.1% often times engaged in eating and drinking while driving. In terms of outside vehicle distractions such as reading bill boards/sign post, findings revealed that 28.8% of the respondents rarely or never engage in it, while the remaining 71.2% of the respondents often times are distracted by outside vehicle distractions. In terms of in-vehicle gadgets such as turning or adjusting air conditioning controls and vents or adjusting speakers while driving, findings revealed that 35.8% rarely or are never distracted by in-vehicle gadgets while 64.2% often times are distracted by in-vehicle gadgets. The study, therefore, revealed that the types of drivers' distraction common among drivers in Port Harcourt metropolis traffic routes networks were making/receiving calls, texting, in-vehicle conversation, adjusting cd/radio, eating and drinking while driving, out-vehicle distraction, and in-vehicle gadget handling.

Table 4: Types of drivers' distraction

Making/receiving calls	Frequency	Percentage (%)
Never	52	13.5
Rarely	103	26.7
Often	155	40.2
Very Often	76	19.7
Total	386	100.0
Phone texting	Frequency	Percentage (%)
Never	38	9.8
Rarely	93	24.1
Often	175	45.3
Very Often	80	20.7
Total	386	100.0
In-vehicle conversation	Frequency	Percentage (%)
Never	42	10.9

Rarely	81	21.0
Often	196	50.8
Very Often	67	17.4
Total	386	100.0
Adjustment of Cd/radio while driving	Frequency	Percentage (%)
Never	13	3.4
Rarely	57	14.8
Often	247	64.0
Very Often	64.0	17.9
Total	386	100.0
Eat/drink while driving	Frequency	Percentage (%)
Never	11	2.8
Rarely	66	17.1
Often	237	61.4
Very Often	72	18.7
Total	386	100.0
Outside vehicle distraction	Frequency	Percentage (%)
Never	12	3.1
Rarely	99	25.6
Often	209	54.1
Very Often	66	17.1
Total	386	100.0
In-vehicle gadgets	Frequency	Percentage (%)
Never	35	9.1
Rarely	103	26.7
Often	174	45.1
Very Often	74	19.2
Total	386	100.0

D. Effects of Drivers' Distraction on the Road in Port Harcourt Metropolis

Analysis of the effects of drivers' distraction in Port Harcourt Metropolis is shown in Table 5 whereby the findings revealed that 42.2% of the respondents were of the view that people have involved in an auto accident as a result of drivers distraction while 57.8% said that drivers' distraction rarely or never resulted to auto crash accident. However, findings also revealed that 61.7% of the total respondents have had near crash issues as a result of drivers' distraction. The remaining 38.3% of the respondents have rarely or never been involved in near crash. Furthermore, analysis showed that 52.6% of the respondents have not had any traffic-related issues with traffic officials as a result of drivers' distraction while 47.4% of the respondents have had one issue or the other with traffic officials as a result of drivers' distraction in the study area. Findings showed that 36.5% of the respondents have not experienced poor turning in heavy traffic as a result of drivers' distraction while 63.5% of the respondents have experienced it. In the real sense, 63.4% had the experience of misuse of lanes due to drivers' distraction while 63.5% believed that drivers' distraction would cause improper indication.

Table 5: Effects of Drivers' Distraction

Accidents	Frequency	Percentage (%)
Never	84	21.8
Rarely	139	36.0
Often	116	30.1
Very Often	47	12.2
Total	386	100.0
Near Crash	Frequency	Percentage (%)
Never	7	1.8
Rarely	141	36.5
Often	105	27.2
Very Often	133	34.5
Total	386	100.0
Issues with Traffic Officials	Frequency	Percentage (%)
Never	50	13.0
Rarely	153	39.6
Often	118	30.6
Very Often	65	16.8
Total	386	100.0
Poor Turning in Heavy Traffic	Frequency	Percentage (%)
Never	38	9.8
Rarely	103	26.7
Often	202	52.3
Very Often	43	11.1
Total	386	100.0
Misuse of Lanes	Frequency	Percentage (%)
Never	32	8.3
Rarely	105	27.2
Often	197	51.0
Very Often	48	12.4
Total	386	100.0
Improper indication	Frequency	Percentage (%)
Never	27	7.0
Rarely	114	29.5
Often	205	53.1
Very Often	40	10.4
Total	386	100.0

E. Influence of Socio-economic status of Drivers on Drivers' Distraction

Table 6 shows the level of drivers' distraction among drivers with respect to their socio-economic characteristics. The analysis showed that drivers between the age characteristics of 18-24 years with the least level of drivers distraction for all listed types of distraction were 10.0%, 9.4%, 9.9%, 9.7%, 13.7%, 11.6% and 9.7% respectively. The drivers that fell between the age group of 25-34 years agreed to the highest level of drivers' distraction, which were 40.3%, 39.6%, 40.3%, 37.5%, 37.9%, 38.2%, and 39.9% in the study area. Similarly, among the drivers with age group of between 35-45 years also showed a relatively high level of drivers' distraction among drivers in the study area. The distribution were 25.5%, 23.1%, 22.4%, 21.3%, 22.3%, 24.0%, and 20.2%. However, the second highest responses were obtained from those drivers of ages above 46 years, and the distribution were 24.2%, 27.8%, 27.4%, 27.4%, 30.1%, 26.2%, and 30.2% respectively.

The information obtained on the level of influence of gender on drivers' distraction showed not much of a distinction because the majority of sampled respondents were males (97.4%). Thus, the distribution showed slight variation in the level of drivers' distractions among male drivers in the study area. The variations were 97.8% (making and receiving calls), 97.6% (texting), 96.6% (in-vehicle conversation), 96.8% (adjusting of radio/cd), 97.7% (eating/drinking), 97.1% (outside vehicle distractions), and 97.6% (in-vehicle gadgets distraction). On the other hand, among the sampled female drivers; for the same type of distractions, the distribution were 2.2%, 2.4%, 3.4%, 3.2%, 2.3%, 2.9%, and 2.4% respectively.

The driving experience among sampled drivers also showed variations in the level of drivers distractions experienced in the study area. The distribution for drivers with at least 6 months - 2 years' experience for types of drivers' distraction revealed 29.4%, 27.8%, 29.3%, 28.0%, 28.5%, 28.4%, and 31.0%. Drivers with at least 3-5 years' experience had the highest level of drivers' distraction among sampled respondents, and showed variation of 42.4%, 44.7%,

39.9%, 39.6%, 42.7%, 41.1%, and 42.3%. Drivers with at least 6 - 7 years of experience had 26.0%, 25.5%, 28.9%, 26.5%, 26.9%, 28.4%, and 25.0%, while the remaining drivers with above 7 years' experience had 2.2%, 2.0%, 1.9%, 2.1%, 1.9%, 2.2%, and 1.6% respectively.

The study thus showed that the experience among drivers have a role to play in the level of drivers distraction identified in the study area, especially when one considers the number of respondents with respect to their age characteristics. The distribution showed that 22.5% (18-24 years), 33.8% (25-34 years), 23.9% (35-45 years) and 29.9% (46 years and above) had at least 6 months - 2 years driving experience and so on.

Table 6: Influence of Socio-economic Characteristics of Drivers on Drivers' Distraction

Socio-economic Characteristics	Types of Drivers' Distraction						
	Dialling/ Receiving	Texting	In-vehicle	Radio/Cd	Eating/ Drinking	Out vehicle distraction	In- vehicle gadgets
Age (years)							
18-24	23 (10.0)	24 (9.4)	26 (9.9)	45 (13.7)	30(9.7)	32(11.6)	24(9.7)
25-34	93 (40.3)	101 (39.6)	106(40.3)	123(37.5)	117(37.9)	105(38.2)	99(39.9)
35-45	59 (25.5)	59 (23.1)	59 (22.4)	70(21.3)	69(22.3)	66(24.0)	50(20.2)
46 and above	56 (24.2)	71 (27.8)	72(27.4)	90(27.4)	93(30.1)	72(26.2)	75(30.2)
Gender							
Male	226 (97.8)	249(97.6)	254(96.6)	306(96.8)	302(97.7)	267(97.1)	242(97.6)
Female	5 (2.2)	6 (2.4)	9 (3.4)	10(3.2)	7(2.3)	8(2.9)	6(2.4)
Driving Experience							
6 months - 2 years	68(29.4)	71(27.8)	77(29.3)	92(28.0)	88(28.5)	78(28.4)	77(31.0)
3 - 5 years	98(42.4)	114 (44.7)	105(39.9)	130(39.6)	132(42.7)	113(41.1)	105(42.3)
6 - 7 years	60(26.0)	65(25.5)	76(28.9)	87(26.5)	83(26.9)	78(28.4)	62(25.0)
Above 7 years	5(2.2)	5(2.0)	5(1.9)	7(2.1)	6(1.9)	6(2.2)	4(1.6)

A. Level of awareness against road traffic crashes

The level of awareness as regards preparation against road traffic crashes is presented in Table 7. The analysis showed that 35.2% of the respondents ensured vehicle servicing while 63.8% of the respondents rarely service their vehicles. Similarly, as regards the level of physical and mental alertness among drivers, the distribution showed that 23.5% of the respondents often times pay attention to their health before driving, while the remaining 76.4% of the respondents did not. The level of personal injury protection (PIP) equipment installation among sampled respondents, showed that only 12.2% of the respondents have it installed, while the remaining 87.8% of the respondents rarely or have never had it installed for safety. The attitude of drivers to the use of seat

belts also showed that 42.5% of the sampled drivers always use it while the remaining 57.5% of the respondents rarely use it. However, the level of use of seat belt among drivers is usually conditional because most of the drivers use effectively based on traffic official directives.

Table 7: Level of awareness against road traffic crashes

Options	Very often	Often	Rarely	Never
Vehicle Fitness/Serviceing	36 (9.3)	104(26.9)	199(51.6)	47(12.2)
Physical/Mental alertness	4(1.0)	87(22.5)	230(59.6)	65(16.8)
Personal Injury Protection (PIP) equipment	7(1.8)	40(10.4)	281(72.8)	58(15.0)
Use of Seat Belt	14(3.6)	150(38.9)	220(57.0)	2(0.5)

B. Relationship between Drivers Distraction and Road Traffic Crashes

Table 8 shows the relationships between drivers' distractions and issues related to road traffic crashes in Port Harcourt Metropolis. The results for the analysis showed that road traffic crashes had significant relationships with making/receiving calls ($r = -0.164$; $p < 0.05$) and in-vehicle gadgets ($r = -0.102$; $p < 0.05$). On the other hand, the relationship between other types of drivers' distraction and road traffic crashes were low and not significant at the 0.05 significant levels.

Table 8: Relationship between drivers' distraction and road traffic crashes

Drivers Distraction	Issues relating to Road Traffic Crashes		
	Accidents	Near crashes	Misuse of lanes/Improper indicating/Poor turning
Making/Receiving calls	-0.164*	-0.069	0.085
Texting	-0.096	-0.025	0.068
In-vehicle conversation	-0.060	0.015	0.065
Adjusting radio/cd	-0.039	-0.007	-0.088
Eating/Drinking	0.063	-0.029	-0.099
Out-vehicle distraction	-0.036	-0.057	-0.085
In-vehicle gadgets	-0.102*	0.045	0.034

*Correlation is significant at the 0.05 level

IV. DISCUSSION

The major types of drivers' distraction identified were: making/receiving calls, texting, in-vehicle conversation, adjustment of radio/cd, eating and drinking, out-vehicle distraction, and in-vehicle gadgets. Findings of the study are similar with Klaus et al., (2014); and WHO (2009), that major distraction types among drivers are making/receiving calls, texting, tuning radio and adjusting cd player, and other associated in-vehicle and out-vehicle distractions. WHO (2009) also discovered that the proportion of drivers using mobile phones while driving over the last 10 years have increased from range 1% to 11% worldwide. Findings of the study further revealed the implication of practiced driver's distraction as road traffic accidents, near crash, misjudged left/right turn, misuse of traffic lanes and so on. Canadian Automobile Traffic Association (CATA) (2012) pointed out some effects of drivers distractions as road accidents and other near crashes issues and further discovered that 30% of drivers out of every road traffic accidents usually complain of one form of distraction or the other. The sources of distraction are considered to be a part of everyday driving (CATA, 2012). The study revealed such distraction sources as being work related, emergency, environment, ignorance and so on.

Furthermore, findings of the study have revealed significant relationship between road traffic crashes and level of drivers' distraction (in-vehicle gadgets) among drivers in the study area. For instance, in-vehicle gadgets are to be considered as a major source of distraction because many at times, these have been proven by some studies as one of the

major forms of distraction that takes the mind of the driver of the road, which may result into road traffic crashes. The findings of Ibrahim et al., (2011); Shutko and Tijerina (2011); CATA (2012), have shown that in-vehicle technology installations have significant influences on the attention of the drivers on traffic flow and in maintaining safety while driving; also stating that driver distraction leads to attention failure that can also lead to inattention, thereby, may result to road traffic crash.

In addition, the role of socio-economic indices examined for the study revealed variations in the level of distractions experienced among drivers in different traffic routes in the study area. Findings of the study revealed high level of driver distractions among drivers between the age group of 25 years and above, slightly higher than age group between 18-24 years in the study area. This finding is in line with WHO (2009) which reported that road traffic crashes are affecting all age groups but the most debilitating impacts are felt in age groups between 20 - 30 years; that road traffic crashes toll will rise from being in the ninth position of causes of death in the world to fifth if proper planning are not put in place. On the other hand, findings of the study have revealed that gender consideration among drivers and their level of distractions which can be related to road traffic crashes was not significant as majority of sampled respondents were male drivers.

The relationship between drivers' distraction and road traffic crashes in the study area revealed significant relationship between the use of phone calls and engaging in in-vehicle operation with rate of traffic crashes. This findings were similar to Uzundu (2014), who reiterates that road traffic crashes in Nigeria significantly increases with increase in mobile use and in-vehicle operations. Consequently, the issue of mode of training among drivers were examined and the study discovered that majority of the sampled drivers were trained by family members, friends, and driving schools. The implication of this is that the training received from a member of the family may be inadequate as the trainer may not have enough knowledge regarding the rules and regulation guiding road users to prevent or reduce traffic crashes.

V. CONCLUSION

The study has assessed drivers' distractions and road traffic crashes among commercial vehicle operators in Port Harcourt Metropolis, Rivers State, Nigeria. It can be concluded that the use of mobile phones and the practice of in-vehicle gadgets had significant impact on the incidence of road traffic crashes among commercial drivers in sampled traffic routes. The study therefore recommended that pro-active measures and effective control practices are essential should be put in place to promote safety on the road and reduce road traffic accidents; effective training procedures are required before issuing licence to motorist in order to control the rate of drivers' distractions; government should be proactive in developing effective programs to train the young drivers so as to help reduce their exposure factors and curb other form of excesses contributing to road traffic crashes; and more studies on in-vehicle technology constituting to road traffic

crashes should be encouraged to aid in the management of road traffic crash and other related issues.

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