DRIVERS' BEHAVIOUR AND RISK PERCEPTION AMONG HAULAGE COMPANIES IN RIVERS STATE, NIGERIA

Abstract

The study examined the risk perception influence on drivers' behaviour (violations) among haulage companies in Rivers State, Nigeria. A total of 210 copies of questionnaire was administered among 20 haulage companies and the retrieved questionnaire were analysed using descriptive and inferential statistics such as frequency counts, percentage and spearman rank. The findings revealed that haulage drivers hardly ever involve in violations such as "pull out of a junction so far that the driver with the right of way has to stop and let you out" (41.4%), "stay in a motorway lane that you know will be closed ahead until the last minute before forcing your way into the other lane" (67.6%) and never disregarded the speed limit on a residential road (70.7%); however, they occasionally drive so close to the car in front that it would be difficult to stop in an emergency (51.0%). From the spearman rank analysis, it was revealed that there is a statistically significant relationship between the Risk Perception Index (RP_Index) and Ordinary Violation (OV_index) (where p-value < 0.05 and p = 0.000). The correlation coefficient (r) of the analysis showed that the relationship between RV_Index and AV_index is weak and positively correlated (were r = 0.256). It was concluded that the extent of risk perception by the haulage drivers have significant relationship with their violation behaviour, and such relationship tends to be weak and positive.

Keywords: Risk Perception, Driver Behaviour, RTAs, Traffic Violations

Introduction

In Nigeria, RTA statistic revealed a serious and growing problem with absolute fatality rate and casualty figures rising rapidly. According to Atubi (2015), "Nigeria loses about 80 billion naira annually to road accidents of all subjects that are involved in road traffic accidents in Nigeria, 29.1 percent suffer disability and 13.5 percent are unable to return to work". "Public health experts worldwide concede that there is a global epidemic of RTA. The incidence, however, is higher in developing countries" (Onyemaechi & Ofoma, 2016). "According to the WHO, low-.and middle-income countries accounted for 92% of road traffic deaths but had only 53% of registered vehicles in 2011. In Nigeria, injuries and deaths resulting from

RTA are on the rise and account for the highest proportion of deaths on the Africa continent" (Onyemaechi & Ofoma, 2016). "Road accidents are Nigeria's third‐leading cause of overall deaths, the leading cause of trauma‐related deaths and the most common cause of disability" (Onyemaechi & Ofoma, 2016). "According to the WHO, the country has 1042 deaths a year for every 100,000 vehicles, one of the highest rates of road fatalities in the world; the equivalent figures for the United States and Britain are 15 and 7, respectively" (Onyemaechi & Ofoma, 2016).

"Road traffic accidents occur when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction, such as a tree or utility polo" (Bun, 2012). According to Vogel and Bester (2005) and Bucsuhazy et al. (2020), "risk factors influencing road traffic crashes as human, vehicle, and road and environment factors. Human factors included negligence, excess speed, dangerous overtaking, pedestrians in the road, and inconsiderate driving behaviour. Vehicle factors were mostly about faulty brakes and tyres. Road and environmental factors included rush-hour traffic and inadequate facilities for pedestrians". "Similarly, several driver characteristics and driving behaviors due to age, diet, alcohol consumption, circadian rhythms, drug intake and diseases may contribute to a reduced alertness and induce drowsiness with dangerous consequences on driving ability thus increasing the risk of car crashes. It can be estimated that human factors concerning the psychophysical condition of the driver are involved in 60-80% of road accidents" (Bucsuhazy et al., 2020).

Despite series of intervention put in place by Nigeria government through FRSC, Afolabi and Gbadamosi (2017) noted that there is a rising incidence of RTA in Nigeria making it the third‐leading cause of overall deaths, the leading cause of trauma‐related deaths and the most common cause of disability (Babalola et al., 2018). In Nigeria, several RTAs studies have been conducted in relation the causes and consequences (Bum, 2012; Afolabi &

Gbadamosi, 2017; Siyan et al., 2019; Akpoghomeh, 2012; Salako et al., 2014; Atubi, 2015; Babalola et al., 2018; Oguagbaka, 2019; Egede, 2014; Onyemaechi & Ofoma, 2016; Bassey & Emmanuel, 2021; Obioha et al., 2022); however, gap still exist in the knowledge related to risk perception influence on drivers' behaviour (violations) among haulage companies in Rivers State, Nigeria.

Material and Methods

Study Area

The study was undertaken in Rivers state, Nigeria while major roads and parks of interest are located within the Port Harcourt metropolis. Rivers State is a maritime state in the southern geopolitical zone of Nigeria, located on 4°58′30″N and 6°40′30″E (Figure 1) (Akukwe & Ogbodo, 2015). It has a total population of 5,198,716 (NPC, 2006) comprising 23 local government areas with Port Harcourt, the state capital as one of the Local Government Areas (LGA). The main city of Port Harcourt is the Port Harcourt city in the Port Harcourt local government area, consisting of the former European quarters now called Old Government Reserved Area (Old GRA) and new layout areas. The Port Harcourt Urban Area (Port Harcourt metropolis) is made up of the city itself and parts of Obio-Akpor Local Government Area. Port Harcourt City is highly congested as it is the only major city of the state.

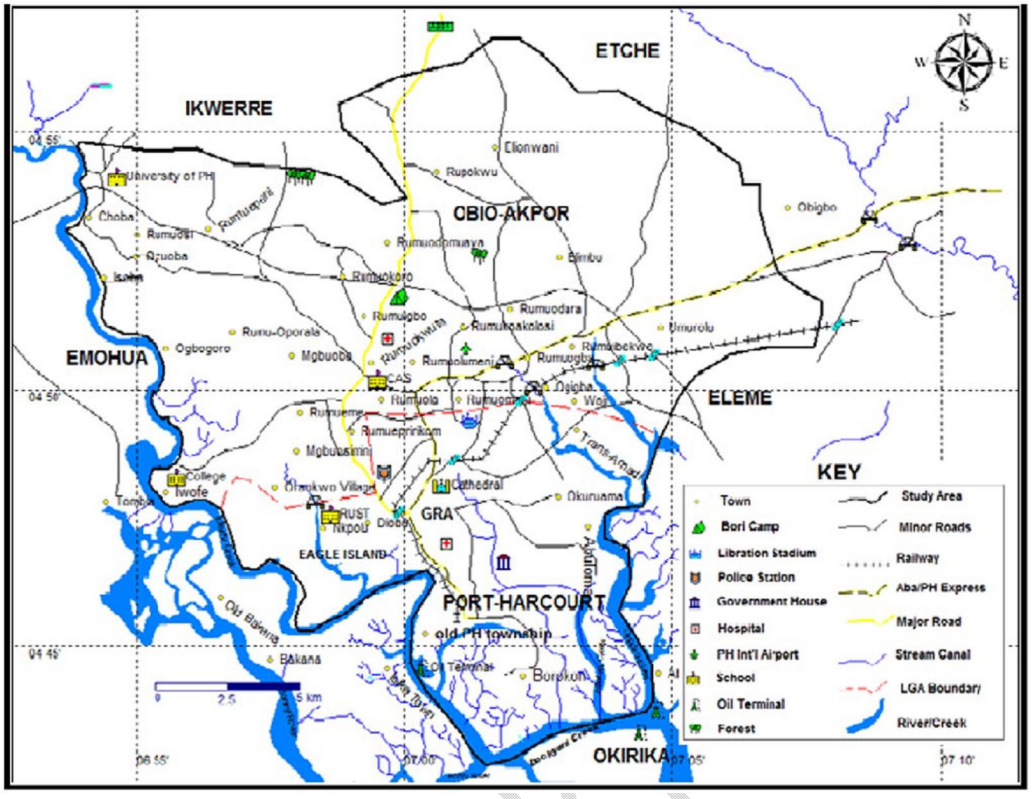

Figure 1: Overview of the Port Harcourt Metropolis

Study Design and Sample Size

The survey research method was adopted to carry out the study. This method was adopted because it is a suitable and efficient way of studying large population. For the study, the sample size was 210 based on the number of drivers available at the selected haulage companies. The data collection for the study was done through the use of questionnaire which was validated and tested through trial testing (pilot survey) for reliability purpose. A total of 210 copies of questionnaire was administered purposively among the respondents.

Data Analysis

The retrieved copies of questionnaire were coded and subjected to statistical analysis using Statistical Package for the Social Sciences (SPSS-21) for proper analysis. The data of the study were analysed through descriptive (frequency count and percentage) and inferential statistics (Spearman Rank at 95% level of significance).

Results

The analysis revealed that all respondents (210) were male while most of them are within the age of 31-40years (60.0%) and the least are within age range of 41-50years (3.8%). Also, majority of the respondents possessed the First School Leaving Certificate (FSLC) and Senior School Certificate Examination (SSCE) (38.6% each) and they are mostly married (55.7%).

Risk Perception and Violations

Table 1 presented the respondents' feedbacks on Ordinary Violation among the haulage companies. Among the respondents, majority (41.4%) indicated to hardly ever committed OV1 while the least respondents (11.9%) indicated to have committed OV1 quiet often. On OV2, majority of the respondents (43.8%) indicated to never have committed OV2 while the least respondents (7.6%) indicated to have committed OV2 quiet often. From the analysis, majority of the respondents (67.6%) hardly ever committed OV3 and the least respondents (0.5%) committed OV3 quite often. Majority of the respondents (43.3%) indicated to have committed OV4 quite often while the least (9.0%) occasionally committed OV4. The outcome indicated that most of the respondents (36.7%) have committed OV5 while the least respondents (12.4%) indicated to have committed OV5 quiet often. Similarly, 51.0% representing majority of the respondents indicated to occasionally involve in OV6 while the least of the respondents (0.5%) frequently involve in OV6. Also, most of the respondents (53.3%) hardly ever involved in OV7 while the least (1.9%) frequently involve in OV7. From the analysis, majority of the respondents (70.7%) hardly ever committed OV8 and the least respondents (1.0%) committed OV8 quite often.

Table 1: Respondents Feedback on Ordinary Violations (OV)

SN	Ordinary Violations (OV) Variables	NV (%)	HE (%)	OCC (%)	QO (%)	FRE (%)	NAT (%)	Total (%)
1	OV1	30 (14.3)	87 (41.4)	35 (16.7)	25 (11.9)	33 (15.7)	-	210 (100)
2	OV2	92 (43.8)	62 (29.5)	40 (19.0)	16 (7.6)	-	-	210 (100)
3	OV3	9 (4.3)	142 (67.6)	58 (27.6)	1 (0.5)	-	-	210 (100)
4	OV4	20 (9.5)	80 (38.1)	19 (9.0)	91 (43.3)	-	-	210 (100)
5	OV5	48 (22.9)	77 (36.7)	29 (13.8)	26 (12.4)	30 (14.3)	-	210 (100)
6	OV6	30 (14.3)	34 (16.2)	107 (51.0)	38 (18.1)	1 (0.5)	-	210 (100)
7	OV7	38 (18.4)	112 (53.3)	56 (26.7)	-	4 (1.9)	-	210 (100)
8	OV8	48 (23.1)	147 (70.7)	10 (4.8)	2 (1.0)	4 (1.9)	-	210 (100)

NB: NV= Never, HE = Hardly Ever, OCC = Occasionally, QO = Quiet Often, FRE = Frequently, NAT = Nearly all the Time

***OV1:** Pull out of a junction so far that the driver with the right of way has to stop and let you out, **OV2:** Disregard the speed limit on a residential road, **OV3:** Stay in a motorway lane that you know will be closed ahead until the last minute before forcing your way into the other lane, **OV4:** Overtake a slow driver on the inside, **OV5:** Race away from traffic lights with the intention of beating the driver next to you, **OV6:** Drive so close to the car in front that it would be difficult to stop in an emergency, **OV7:** Cross a junction knowing that the traffic lights have already turned against you, **OV8:** Disregard the speed limit on a motorway*

Considering the relationship between risk perception (RP) and ordinary violations (OV), a nonparametric analysis was carried out using the spearman rank analysis and the outcome along with descriptive statistic of the analysis was presented in Table 2-3. The descriptive statistics revealed that 208 respondents participated with minimum score of 13 and maximum score of 26.0 while the mean and standard deviation were 19.06 and 3.005 respectively. From the spearman rank analysis, it was revealed that there significant relationship between the RV_Index and OV_index (where p-value < 0.05 and p = 0.000). The correlation coefficient

(r) of the analysis showed that the relationship between RV_Index and AV_index is weak and positively correlated (were r = 0.256).

Table 2: Descriptive Statistics of Risk Ordinary Violations (OV) Index

	Minimum	Maximum	Mean	Std. Deviation
RP_Index	13	26	19.06	3.005
Valid N (listwise)				

N=210

Table 3: Nonparametric Correlations RP Index vs OV Index

			RP_Index	OV_Index
Spearman's rho	RP_Index	Correlation Coefficient	1.000	.256**
		Sig. (2-tailed)	.	.000
		N	208	208
	OV_Index	Correlation Coefficient	.256**	1.000
		Sig. (2-tailed)	.000	.
		N	208	208

**. Correlation is significant at the 0.01 level (2-tailed)

Discussion

The feedbacks on ordinary violation showed that haulage drivers hardly ever involve in violations such as pulling out of a junction so far that the driver with the right of way has to stop and let them out, stay in a motorway lane that you know will be closed ahead until the last minute before forcing your way into the other lane, overtake a slow driver on the inside, never race away from traffic lights with the intention of beating the driver next to them, cross a junction knowing that the traffic lights have already turned against them and disregarded the speed limit on a motorway. Also, haulage drivers never disregarded the speed limit on a residential road; however, they occasionally drive so close to the car in front that it would be difficult to stop in an emergency.

In establishing the relationship between the risk perception of the drivers and their ordinary violation, it was revealed that the extent of risk perception by the haulage drivers have

significant relationship with their ordinary violation behaviour, and such relationship tends to be weak and positive. This implies that with increase in risk perception of the drivers the might not necessarily contribute to their increase in ordinary violation behaviour; hence, other factors can play part in their action. This submission was similar to that of Chen et al. (2022) which indicated that "drivers may engage in aggressive driving behaviourur or fail to avoid hazards in a timely manner if their subjective level of perceived risk is low". Also, Fan et al. (2019) noted that the choice of driving behavior influenced by the drivers' perceived subjective risk and objective risk. The finding corroborated with the finding of Sayed et al. (2022) which asserted that ordinary violation variable such as failure of keeping a safe following distance, was a major cause of crashes in the study; hence, drivers' perception of such risk can either result to or prevent such violation.

Conclusion and Recommendations

Understanding driver behaviour has become a priority for establishing effective strategies to reduce the extent of traffic accidents; therefore, the study assessed the risk perception influence on drivers' behaviour (violations) among haulage companies in Rivers State, Nigeria and based on the findings of the study, it was concluded that the extent of risk perception by the haulage drivers have significant relationship with their violation behaviour, and such relationship tends to be weak and positive. There is need for collaboration between government agency such as Federal Road Safety Corp (FRSC) and haulage companies in providing training courses and standard for their drivers to improve the behavioural pattern. Also, there is need for awareness on driving etiquette rules to avoid the "ordinary or aggressive violation" effect and consider including informative material in the driving test exam.

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