

Knowledge and Observance of Road Communication Signs among Commercial Drivers in South-South, Nigeria

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Abstract

Transportation is very primary in the development of any society. The increasing loss of lives, goods and services is becoming much. Traffic signs were introduced as a means of informing drivers about the nature of the road and maintain discipline in the drivers. This study set out to evaluate the knowledge and observance of road communication signs among commercial drivers in south-south, Nigeria. Using the survey method, data were collected using the questionnaire as the instrument. Employing Taro Yamane formula, a sample of 368 was arrived at. The purposive sampling method was used to select public parks in Port Harcourt, Uyo and Benin City while systematic sampling was used to select the respondents. Data were presented in tables and percentages. The results show that a good number of commercial drivers in south-south Nigeria have fair knowledge of traffic signs, but willfully do not observe them. It was recommended that the FRSC should institute refresher programmes for highway drivers at regular intervals for the drivers to have fresh thoughts of safe driving in their minds.

Key words: Road signs, Observance, Communication, Commercial drivers

Background

Transportation is about the oldest and often forgotten means of communication. In the old days, information was carried from one place to another by news extenders on foot, horse backs and later on ships. With the development of technologies for communication, transportation as a form of communication assumed autonomy. Transportation has been recognized as very essential in the development of any society. Victor and Punnuswamy (2012) observes that transportation encourages "geographical distribution of people and their activities...People travel to primarily earn a living, conduct family businesses, and engage in social and recreational activities"(p.1).

The word transport is derived from two Latin words *portare* which means to carry and *trans* which means across. Transportation therefore means to "carry something across the space between one place and another" (Tiffin and Kissing, 2007:p4). The items carried could be human beings, services, goods or ideas to urban areas and the urban areas to the rural places. But naturally urban cities have large population of people who are coming to search for greener pastures. The case of Boko Haram in Nigeria has channeled people's attention to the growing cities of Uyo, Yenagoa, in addition to the already populated Port Harcourt in the south-south, Nigeria. Victor and Punnuswamy (2012) corroborate urbanization in their submission that "urban areas as permanent places of habitation started with the agricultural development. Their later growth, development and shaping were closely related to the availability of transportation" (p.11)

One dangerous thing that is associated with transportation of any type is crashes. That of road is more simply because it is the most popular means of transportation. There are several reasons adduced for the cause of road crashes, but the dominant reason in over-speeding and ignorant of road communication signs. According to the National Bureau of Statistics (NBS), "Nigeria recorded 11, 363 road accidents in 2016 where 5,053 got killed and 30,105 were injured". In the first half of 2017 (January-June), NBS records show that "2,673 people were killed and 8,270 people were injured in road accidents. This means that about 15 persons were killed in road crashes in the country daily during the period under review"(www.vanguard.com).

Before now, the government of Nigeria had set up several agencies to help bring down the number of crashes on the roads. In 1988, the Federal Road Safety Corps was set up to among other things educate drivers, motorists and other members of the public generally on the proper use of the highways; prevent or minimize accidents on the highway (http://frsc.gov.ng).

Driving involves a lot of physical and mental activities. A good driver ought to have attended a driving school where the person would be put through how to use the road, meaning of road signs and how to respect other road users. All these are codified into communication signs and symbols put on the side of the road to not only inform, but remind drivers of action/s to be taken at any given situation/time. This is corroborated by The



Department of Transportation of the Great Britain book where it say that "traffic signs play a vital role in directing, informing and controlling road users' behaviour in an effort to make the roads as safe as possible for everyone" (p.4).

Drivers should be patient and show care, skill and consideration for other road users. It believed that with this type of knowledge and its application road crashes would be reduced to the barest minimum. A driver should not only be familiar with each of the signs, the person should recognize the special shapes, colours and meaning of each sign. Road crashes are one of the most prominent causes of injury, incapacitation or death in Nigeria today. Most Nigerians earlier believed that road crashes are out of one's fate or due to fetish manipulations by the evil men or spirits. Road accident according to experts is preventable and avoidable. Nigerian government established a road safety agency whose job include the education of road users. On the south-south high-ways and local roads, there are road signs and markings just like other parts of the world to communicate to the driver what is ahead such as bad spots on the road, dangerous bends, bridges, valley, broken down vehicle and a host of other signs.

In spite of these efforts to reduce accidents on the roads, crashes continue to occur increasingly. It is not, however, certain whether this can be attributed to the ignorance of the meanings of the road communication signs to the commercial drivers. In other words, to what extent are the commercial drivers on south-south highways knowledge of road communication signs and observe them?

Theoretical framework

This study is anchored on the cognitive dissonance theory developed by Festinger Leon in 1957. The theory posits that people tend to hold onto their beliefs and attitudes. Festinger (1957) notes that "when dissonance sets in, the person will actively avoid situations and information which would likely increase the dissonance" (p.3). For this reason people try to make sense of the world by looking for some information and people with consistent views with them.

Bryant and Miron (2004) observe that "cognitive dissonance sets in as soon as people perceive any inconsistency among various aspects of knowledge (beliefs, opinions) and attitudes they are exposed to and this they always want to diminish". Cognitive dissonance theory is the feeling of discomfort, confusion and disquiet caused by conflicting ideas, information or beliefs. Naturally people avoid situations that cause dissonance by avoiding information or situations which would likely increase the dissonance. Cognitive dissonance is the psychological discomfort created in people when they are exposed to information that is not consistent with their belief, attitude or behaviour.

To eliminate or reduce this dissonance people engage in selectivity process. The processes include **selective exposure**: People have the tendency to expose themselves to media messages that they feel are in consonance with their already held beliefs, attitudes and interests while avoiding one that may create dissonance; **selective retention**: People deliberately tend to remember best and longest, information that is consistent with their preexisting attitudes and interests. Good memories are encouraged while **selective perception** involves gathering facts and opinions to support a view one is finding difficult to change from. This is the mental recasting of a message so that its meaning is in line with a person's beliefs and attitudes (Baran and Davis, 2003).

Recognizing, remembering and observing road signs depend on how the driver had viewed or believed in the signs. The road signs might be there but drivers would not see nor observe them because they hold a view about driving which the signs and markings might contradict. Some drivers may adhere to highway rule if the road safety official is present. This is what Festinger (1957) calls "public compliance without private acceptance or forced compliance" (p.87). The people in this category go back to their original belief in the absence of a person to compel them.

Communication as signs and symbols

Communication is an important aspect human existence. Without communication human society would have been boring and directionless. Communication has been variously defined as an interaction or exchange of ideas, culture, feelings, knowledge, etc. between one person and another. Before a meaningful communication is established between two people, they must be in the same frame of reference. That is, the language, signs and symbols used in the interaction must have the same meaning to the parties.

Gesticulations, signs, symbols, marks and objects are different codes and modes through which information can be exchanged or transferred. They are language of their own. Communication is encoded in both verbal and nonverbal forms. The main essence of communication is to modify or affect the behaviour or attitude of the other. In other words, communication is purposeful.

Communication can take place at various levels. It can be intra-personal. This type takes place within a person. When any of the sense organs gets a message, it is sent to the brain for interpretation and action follows. For example, the seeing and responding to a road sign is an intrapersonal communication experience. Secondly,



communication can be interpersonal. This takes place in a face-to-face method between two or more people within a sizeable space. The road sign kept by the road side is (mediated) interpersonal communication. Thirdly, communication can be mass communication. This occurs when a message is sent to a scattered, heterogeneous and anonymous audience through the mass media. The radio, television or newspaper campaign on safe driving is a good example.

In all forms of communication there is noise. Noise is anything that impairs the fidelity or decipherability of a message. When a person did not understand a particular message the desired result of the message may be lacking. In other words, when a message is not understood it affects the response. This is called feedback. People respond to messages according to how they understood them. Wilson (2006) observes that "when communication takes place it is stored in our long term memory bank and remains there until when an occasion in the future necessitates its recall or retrieval" (p.2).

To maintain safe roads all the above mentioned communication forms are employed at different times and for different reasons.

The road signs and the driver

Vehicles were invented to solve the problem of traveling a long distance. Driving skills go beyond moving the car from place to place and includes acquiring life-saving skills. Everybody drives to live.

The knowledge of road signs and symbols is a prerequisite for the issuance of driving license in Nigeria. Lester (2013) writes that "visual communication relies on both eyes that function and on a brain that interprets all the sensory information received" (p.5). There cannot be a visual communication without the eye. It is because of this that the Federal Road Safety Corps of Nigeria conducts eye test before issuing driving license.

Road signs communicate. According to the International Commission on Illumination (CIE) a (road) sign is:

A device that provides a visual message by virtue of its situation, shape, colour or pattern and sometimes by the use of symbols or alpha-numeric characters...This short message is used to transfer information. The objective of such a communication is to have the receiver understand what the sender means. The sender is the sign designer and he must consider the discriminative, interpretative and recall skills of the driver and the environmental condition (CIE, 1988, p.3).

To qualify as good road signs that can communicate with drivers, Horberry, Castro, Martos and Mertova (2005) identify certain qualities the sign ought to have which include:

- a. **Conspicuity**: Placement of the sign matters. A road sign should be put some metres away from what it represents. "It is vital to locate traffic signs correctly in order to guarantee their visibility at the right distance, allowing drivers to make the right maneuvers comfortably, day or night (p.8).
- b. **Comprehensibility**: A good road sign should be easily understood and remembered. In other words, the sign ought to be easily memorized.
- Legibility: Road signs have to be legible enough to be recognized from a reasonable minimum distance.
- d. **Credible and accurate**: Road signs are not supposed to be ambiguous. They should mean what they represent. The driver should be convinced of what the sign says he/she should do.

Road signs are made simple in order for them to identified, recognized and be observed by drivers. The colours road signs are rendered in have great effect. Lester (2013) notes that because of its long wavelengths and quick recognition by the eye, red colour is used for signal, warning and stop lights (p.17). There are still other colours used for other certain signs. (A copy of the road signs is on the appendix).

Ibrahim (2016) in the study entitled, "evaluating the effectiveness of Federal Road Safety Commission training and education for commercial vehicle drivers in Jigawa State, Nigeria", it was found that "irrespective of vehicle driver's age, once they are behind the wheel and on the highways their behaviour towards road safety signs are non-commital and reckless" (p. 137). In a similar vein, Chidoka (2009) notes that Nigerian drivers have no regards to traffic rules and regulations. They do not observe speed limit or traffic signs on highways, many drivers overtake anywhere and anyhow"

Federal Road Safety Corps and driver's education

Road education involves inculcating in drivers the right attitude to the use of the road. Learning has no end as far as one enters the driving wheel. Bill Kennedy Driving School (2009) notes that "after a person has obtained a driver's license and has had some experience, the next step in the learning progression is to become an accomplished defensive driver" (p.5). Truly, the essence of driver education is to make every driver attain the level of defensive driving.



To attain this, every driver should know that driving is a full time job that engages the whole parts of the body—the leg, hand, brain, eyes, ears and even the nose. All these can detect an error in driving or a fault with the vehicle. Bill Kennedy Driving School (2009) submits that "defensive driving is to expect the unexpected or mistakes from other drivers and the various negative situations that are created"(p.5).

There are two types of drivers on the way –commercial and private vehicle drivers. The commercial vehicle driver is the one that drives as a profession. The driver ferries people in large numbers from one place to another. Data on the category of vehicles involved in the road accidents in the first quarter of 2017 reflected that 59 per cent of vehicles are commercial (www.vanguardngr.com). Corroborating this, Yakassi (1998) as cited by Onuka and Akinyemi (2012) claims that "many commercial vehicle drivers knew nothing more than moving vehicles and hooting their horns ostensibly to attract the attention of the passengers"(p.130).

Similarly, Ibrahim (2016) notes that "many commercial vehicle drivers have characters that are antiroad safety such as random change of lanes, driving under the influence of drugs and alcohol, and disobedience to traffic signals (p.127).

The FRSC has different ways through which it carries out this driver's education. Sani (2005) as cited by Onuka and Akinyemi (2012) identifies strategies such as organization of workshops, seminars, lectures, rallies at motor parks, jingles on the radio/television and driver's improvement courses to inculcate the knowledge of highway traffic in the road users". In addition, the Training Unit of the FRSC engages in the retraining and recertification of commercial drivers if they suspect, for instance, that drivers of a transport company is reckless and are frequently involved in road crashes. The training involves lectures, visual and blood pressure tests and sensitization exercises for the drivers to avoid drugs and alcohol while driving.

Of recent, the FRSC has engaged in Driving School Standardization Programme (DSSP) as a strategy towards the actualization of its vision of creating a safer motoring environment for all Nigerians by educating all road users on the proper use of highways. In line with this mandate, DSSP was established and launched in May 2010, to standardize and create uniformity in driver education and training provided by driving schools (www.frsc-dssp.com). With all these drivers should show enough discipline on the road.

Road transportation and development in Nigeria

It has been observed that road transportation has been the highest private employer of labour in the country. There are over a thousand transportation companies in Nigeria with all of them having at least 10 workers ranging from receptionists who issue tickets to drivers. Onokala (2015) observes that "transportation routes are constructed for distributing resources between places where they are abundant and places where they are scarce" (p.8). Transportation encourages the redistribution of resources from areas of higher concentration to the area of lower concentration. Onokala (2015) point to the fact that:

Since people must utilize various forms of transportation to move around in the daily performance of their social and economic activities in the villages, towns and cities the evolution of transport has always been linked to economic development. This pervasive role of transportation led to the idea that any human society is as developed as its transportation system (p.17).

Tripathi and Gautam (2010) note that "apart from improving connectivity, the development of roads can open up hitherto unconnected regions to trade and investment and step up access to goods, services and employment opportunities" (p.135). Extension of transportation opens up rural areas unknown before. Road crashes also set back the human capital development of a place as the financial cost involved in treating victims is huge.

Methodology

This study adopted the survey method. The survey research is a cheaper way of gathering large volume of data on human behaviour, opinion and attitude of a geographically dispersed population. It is based on this that this method is considered the most suitable approach to employ in this study since it is based on people's attitude and behaviour.

The population of this study comprised all the highway commercial drivers operating in the six southsouth states. It does not include transport companies that operate from their private parks. It equally does not include commercial drivers of less than three-year experience. According to the National Union of Transport Workers, the number of drivers in this category, from the public parks in Port Harcourt, Uyo and Benin City is estimated to be 4600. These three areas were selected because they were the fastest growing areas of the southsouth region.

To take a sample for the study from this population, the researchers used Taro Yamane formula to arrive at 368. The researchers then applied purposive sampling technique to select drivers in the public parks in Port Harcourt, Uyo and Benin City. Subsequently, using the register of the National Union of Transport Workers



systematic sampling technique was used to select 122 respondents for Uyo and Benin City respectively while Port Harcourt had 124 copies of the respondents.

Results

The results of the study is presented and analyzed below using tables and percentages. A total of 368 copies of the questionnaire were administered by hand and all of them were returned giving 100% return rate.

Table 1: Awareness of the presence of road signs on the highways

Awareness	Frequency	percentage
Yes	291	79.1
No	14	3.8
Not aware	63	17.1
Total	368	100

The table shows that 79.1 percent of the respondents saw road signs on the south-south highways.

Table 2. Legibility of the road signs

Legibility	Frequency	percentage
Yes	228	62.0
No	36	9.8
Can't say	104	28.2
Total	368	100

The road signs can be considered legible enough as 62 percent of the respondents can recognize the images on the post. A total of 28.2 percent of the respondents could not say if the signs were legible or not.

Observance of road signs	Frequency	Percentage
Always	94	25.5
Sometimes	166	45.2
Don't know	45	12.2
No time	63	17.1
Total	368	100

The table above shows that a good number of commercial drivers in south-south region observed road signs sometimes. A total of 17.1 percent did not show any regard to road signs.

Booking	Frequency	Percentage
1-5 times	113	30.7
6-10 times	25	6.8
More than 11 times	18	4.9
Never been booked	212	57.6
Total	368	100

The table above indicates that many of the commercial drivers on the south-south route have never been booked for traffic offences. One hundred and thirteen commercial drivers have only been booked for traffic offences between once and five times.

Knowledge of traffic	Frequency	Percentage	
codes			
Speed limits	181	49.2	
Use of seat belt	368	100	
No overtaking	51	13.9	
Dangerous double	83	22.6	
bend			
Narrow bridge ahead	276	75	
No right/left turn	32	8.7	
No U-turn	368	100	
T-Junction	77	20.9	
Long dangerous hill	44	12.0	
Total	368	100	



To test for this, a copy of road sign or traffic code was given to each driver for identification and interpretation. At the end, the percentage knowledge level of the commercial drivers in south-south reveals that a good number of commercial drivers in south-south have moderate knowledge of road signs or traffic code.

Discussion

The results of this study show that commercial drivers are generally careless over the traffic signs. The finding about the awareness of the presence of the road signs show that 79.1 percent of the commercial drivers that ply south-south route saw the presence of traffic signs that are legible enough to be recognized. This finding is consistent with Onuka and Akinyemi (2012) whose study found out that "even after training and education from the Federal Road Safety Corps, that drivers still overtook at corners/bends, drive recklessly even with worn out tyres and make use of GSM while of steering" (p.234)

Similarly, the second research question was to ascertain the level of observance of road signs. A high percentage of the commercial drivers in south-south did not observe the traffic signs. They simply observe the signs sometimes. It is because of this that most of them are rough. It is instructive to note that 57.6% of the drivers have never been booked even when they observe road signs sometimes. This is possible as the Federal Road Safety Corps (FRSC) is not everywhere. The driver could have over sped before getting to the FRSC check point. Secondly, Ibrahim (2016) observes that "punishment for traffic offences can be waived through negotiation or amicable settlement" (p.127).

On the knowledge level of road signs by the south-south highway commercial drivers, it was found that they have moderate knowledge. A good number of them just understood those basic ones such as seat belt, Uturn and speed limits. But Okafor et al (2014) note that this knowledge does not translate to observance of the traffic codes; "although the drivers have a better knowledge of speed limits, they still find it difficult to slow down to the legal limits" (www.ajol.info).

Conclusion and recommendations

Transportation causes the movement of humans, goods and services from the area of abundance to the areas of scarcity for human development. The increase in traffic on the road and other human factors have led to road crashes resulting in loss of lives and other valuables. The introduction of road signs is to inform or communicate to the driver the nature of the road, what he/she needs to do and to be disciplined on the road. This study has found out that even when the highway drivers understand these signs they simply ignore them and drive recklessly on the highway. Based on the findings, it is recommended that FRSC should institute refresher programmes for highway drivers at regular intervals for the drivers to have fresh thoughts of safe driving in their minds. Again, FRSC should make traffic signs available to every driver at the issuance of driving license.

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