EMPIRICAL ANALYSIS OF ROAD SAFETY POLICY ADHERENCE IN NIGERIA: SEAT BELT USE

Stephens, M. S., Ogwude, I. C., * Wilfred I. Ukpere**

Abstract

This research assesses the rate at which road users adhere seat belt use while driving on Nigerian roads, a policy of the Federal Road Safety Corps. Accidents are undesirable. Knowledge of the level of adherence to this FRSC Policy meant to make the road safer is vital. The study span the whole of Nigeria (except the Northeastern Nigeria due to security challenges) using major corridors (highways) that link the six geo-political zones with special interest given to some cities or town along these corridors. Traffic study was done along these corridors from 7am-5pm and the result showed that the use of seatbelts recorded an average of 58 percent level of compliance for car traffic and 60 percent for BATs traffic. It was also noted that the level of compliance dropped during the weekend and FRSC patrols were more on some routes than others which could be a part reason for variation in compliance levels.

Keywords: Seat-belts; Level of Compliance

1. Introduction

Roads and streets are the most important transport communication medium in any country as they connect not just places but also connect other modes of transport and they are used in different forms on daily by virtually everybody. Economically, one cannot overemphasize the importance of the road. The road effectively bridges the gap between the consumers and the producers of commodities. It equally facilitates specialization and enables the use of comparative cost advantages for competing economies. Road therefore contributes significantly to the standard of living of people that uses it (Stephens et al, 2011). It must be noted that roads (transport in general) have externalities. These externalities emanates from the use of transport and it is the effects of the use of transport (whether positive or negative) on others. The poor use of the road can lead to accidents and that can cause loss of lives and properties to non-road users, delays to other road users, loss of man-hours etc.

The foregoing meant that roads must be kept safe if all its benefits are to be enjoyed by all and its externalities minimized. To achieve this, the Federal Road Safety Corps (FRSC) was established to formulate safety policies for the use of road, regulate the usage and maintain and ensure that the roads are safe for all it is users. The FRSC in its attempts to meet its mandate made the following policies:

- a. Use of seat belts while in the vehicle
- b. Use of crash helmet by motorcyclist
- c. Prohibition of Overloading of vehicles
- d. Prohibition of the use of mobile phones while at the steering wheel.

This paper will focus solely on the use of seat belts. The use of seat belts in cars has been adjudged to be saving lives when accidents occur and it is therefore a important that all occupants of automobiles use it (Ekeugo, 2008). However, in Nigeria only the front occupants of any vehicle are mandated to use it since the law came into force in 2003. However, the law is being reviewed to mandate all occupants of the vehicle to use it. This will come into force in July 2014 (FRSC, 2014).

2. Literature review

Vehicle ownership rise ordinarily should translate to increase funding for improved and construction of more road so as to reduce the occurrence of Road traffic accidents (RTA) (Whitelegg, 1983). Whitelegg further argued that RTA will continue to be a serious problem if fundamental misconception of blame apportioning, responsibilities or engineering inadequacies continued to be used to explain RTAs. Mahmud (2011) opined that the problem resulting from traffic accidents, injuries and property lose is an emerging challenge to people in developing countries. To counteract the problem he argued that road safety

^{*}Department of Transport Management Technology, Federal University of Technology, PMB 704 Akure Nigeria

^{**}Department of Industrial Psychology and people Management, Faculty of Management, University of Johannesburg, South Africa

research, road safety awareness be increased. Indeed the increase in road safety awareness drive of the FRSC in Nigeria has greatly reduced the occurrence of RTAs. This is more justified by the fact that greater percentage of passengers and goods moved in Nigeria are transported via the road mode of transport and this traffic is increasing at a steady pace (Stephens et al, 2011). Nigeria is named along Ghana and South Africa as the leading countries (amongst 23states) in accomplishing the mission of the African Road Safety Action Plan (ECA, 2015). The United Nation Economic Commission for Africa's report is based on performance of the plan, which is measured on road safety management, mobility, vehicle, road users and post-crash response.

Aggressive drivers are more likely to be involved in crashes; be young men; have frustration levels and low regards for others; be competitive in nature and tend to speed drive, impaired by alcohol and/or drugs and engage in other unsafe practices such as unlicensed driving and driving without a seatbelt (CARRS,-Q,)

Mahmud (2011) pointed out the following as the constraints of road safety research (RSR) faced by developing countries: under reporting of accidents; institutional weakness for enforcement; lack of professional capacity and expertise; resource constraints; lack of strong political support and commitment, wrong policy; lack of integration between concern agencies; lack of government and private partnership; lack of international linkage, lack of support and cooperation and poor accident data recording system.

Many governments are turning to the private sector participation for the funding of roads improvements with the aim of reducing RTA because of dwindling funds. Vassallo et al (2009) however discovered that only few countries in Europe were implementing explicit incentives that reward the contractor in terms of the safety outcome. In addition, they realized that the indicators used to measure the safety outcome and the incentives offered to the contractor diverge substantially across European countries. Vassallo et al also found that, even though road safety is highly influenced by variables that are not much controllable by the contractor such as the Annual Average Daily Traffic (AADT) and the percentage of heavy vehicles in the motorway, the implementation of safety incentives in PPPs has a positive influence in the reduction of accidents because this variable is significant for all the calibrated models.

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In view of the above, it is pertinent to establish the level of adherence of the road users in Nigeria to the FRSC's policy on seat belt use while in transit in a road vehicle and determine if the enforcement techniques or methods adopted by the FRSC is adequate and churning out positive results.

3. Research objectives

The main objective of this study is to find out the extent to which drivers adhere to the Road Safety Policies (RSP). To achieve the main objective the following sub-objectives must be addressed which are to determine:

- the percentage of road user that violates the policy prohibiting the use of seat belts while in the vehicle;
- policy violation based on vehicular types

4. Research methodology

The research was carried out with the aim of determining the level of adherence to the RSPs and also ascertains the adequacy of the methods and manner in which the FRSC operatives does the enforcement of these policies.

Traffic studies were conducted along selected highways across the nation as the scope of the study was meant to span the whole country. The highways selected for the studies are: Lagos-Ibadan-Ogbomosho; Abeokuta-Sagamu-Benin-Asaba; Onitsha-Owerri-Aba; Port Harcourt-Aba-Umuahia-Enugu; Ilorin-Mokwa-Kafanchan; Okene-Lokoja-Abuja-Kaduna; Zaria-Futua-Gusau-Sokoto; Katsina-Kano-Misua; Makurdi-Lafia-Jos; Abakaliki-Ogoja-Katsina Ala-Wukari-Jalingo and Aba-Ikot Ekpene-Uyo-Calabar.

The data gathering was done using primary means by using high speed cameras that were deployed along the selected routes for a period of one week each between the hours of 0800 to 1700 daily to capture the level of adherence to the RSPs. The cameras were placed at heights that can see through cars and large vehicles (trucks and commercial buses). Two cameras were used along each corridor and upon viewing, noting the number plates were able to reach the daily estimates of traffic on these routes. Worthy of note is the fact that not all vehicles captured by the first camera were captured by the second camera as some of these vehicles could have exited along the corridor and not getting to the end of the corridor. However, for the purpose of ensuring better results only vehicles that were captured by both cameras were counted and used. Reason for this was to ensure that road users would only be considered to have complied with the policies if and only if they were seen to have done so by the two cameras. A total of thirty-six research assistants (RAs) were used for data gathering so that we have four RAs per corridors.

A daily drive through these corridors were conducted to know if the FRSC operatives were actually patrolling or stationed at any spot.

4. Results and discussion

The study captured a large cache of vehicular flow along the corridors selected. Table 1 shows the total number of vehicles recorded. The highway linking Lagos and Ibadan recorded the highest vehicular flow maintaining its status as the busiest highway in Nigeria. Sagamu-Benin highway is the second ranking highway after the Lagos-Ibadan highway. This is so because virtually all the vehicular traffic to the Eastern and Southern part of Nigeria use this road. Okene-Lokoja-Abuja highway is the next in ranking in terms of flow of traffic. This can be seen on table 1 and it is so because many vehicles traveling to the Federal Capital Territory (FCT) from Southern and the Western parts uses this route. It was also noted that vehicular traffic in the Northern part of Nigeria was not as much as what was recorded for traffic in the Southern parts of Nigeria. The traffic recorded for the corridors easily reflected this.

Table 1. Total number of vehicles

Corridor	Cars	Buses and Trucks	Motorcycles
Lagos-Ibadan-Ogbomosho	78571	84499	1766
Abeokuta-Sagamu-Benin-Asaba	86559	81040	4169
Onitsha-Owerri-Aba	34035	30431	4978
Port Harcourt-Aba-Umuahia-Enugu	47256	33715	6638
Ilorin-Mokwa-Kafanchan	28487	21912	4520
Okene-Lokoja-Abuja-Kaduna	63931	62375	3183
Zaria-Futua-Gusau-Sokoto	64838	55464	4938
Katsina-Kano-Misua	47386	43665	6447
Makurdi-Lafia-Jos	26501	29816	7928
Abakaliki-Ogoja-Katsina Ala-Wukari-Jalingo	21861	23523	6619
Aba-Ikot Ekpene-Uyo-Calabar.	26577	28764	7056

Source: Traffic Study (2013)

The study revealed that the volume of motorcycles recorded in the study along the corridors was quite small when compared with that of cars, buses and trucks. This is not unexpected as very few motorcyclists venture onto the highways but rather uses the secondary and rural roads around villages.

a. Use of seat belts while in the vehicle

The study showed that the use of seat belt enjoyed a relatively high level of compliance along certain

corridors that were studied. Table 2 shows the result for Lagos-Ibadan-Ogbomosho corridor where seat belt usage had an average compliance rate of 69 percent and 76 percent respectively for cars and for buses and trucks (BAT) combined. It was also noted that compliance rates dropped as the weekend approaches for car users so that Sunday had the lowest level of compliance at 48percent.

Table 2. Lagos-Ibadan-Ogbomosho

		Sea	at belt use ca	ars		Seat belt	use buses an	d trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	9464	3564	13028	73	10292	2342	12634	81
Tuesday	7645	2341	9986	77	10928	2453	13381	82
Wednesday	8474	3422	11896	71	9272	3215	12487	74
Thursday	7645	2342	9987	77	7464	3172	10636	70
Friday	9846	3647	13493	73	11928	4251	16179	74
Saturday	6353	3242	9595	66	7362	2435	9797	75
Sunday	5123	5463	10586	48	7232	2153	9385	77
Average			11224	69	Average	•	12071	76
Total			78571		Total		84499	

Source: Traffic Study (2013)

Table 3. Abeokuta-Sagamu-Benin-Asaba

		Sea	t belt use ca	rs		Seat belt	use buses an	d trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	9736	3245	12981	75	9272	3526	12798	72
Tuesday	9210	3425	12635	73	8373	3647	12020	70
Wednesday	8172	4657	12829	64	8252	4743	12995	64
Thursday	8353	6453	14806	56	6483	3647	10130	64
Friday	10272	2163	12435	83	9383	3627	13010	72
Saturday	8373	1526	9899	85	7463	2633	10096	74
Sunday	5342	5632	10974	49	8162	1829	9991	82
Average			12366	69	Average		11577	71
Total			86559		Total		81040	

As for Abeokuta-Sagamu-Benin-Asaba corridor, the level of compliance was equally relatively high with average of 69 percent and 71 percent levels of compliance for cars and BAT. This can be seen on table 3 where it was also noted that the level of compliance reduced on Sunday for cars on this route. Most buses and trucks complied with the policy of seat belt use, surprisingly having the highest level on Sunday.

Level of compliance along Oweeri-Onitsha-Aba corridor can be seen on table 4. It was noted that the level of compliance was not as much as recorded for Lagos-Ibadan-Ogbomosho and Abeokuta-Sagamu-Benin-Asaba corridors. The average level of compliance was 58 percent and 52 percent for cars and BAT. It was also discovered that compliance levels dropped during the weekend along this corridor too.

Table 4. Onitsha-Owerri-Aba

		Sea	at belt use ca	ars		Seat belt	use buses a	nd trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	3452	1726	5178	67	2635	2534	5169	51
Tuesday	3217	2514	5731	56	2738	2637	5375	51
Wednesday	2738	1928	4666	59	2425	1827	4252	57
Thursday	2637	1987	4624	57	1938	1728	3666	53
Friday	3748	2837	6585	57	2374	1720	4094	58
Saturday	1928	1252	3180	61	1928	1928	3856	50
Sunday	1928	2143	4071	47	1827	2192	4019	45
Average			4862	58	Average		4347	52
Total			34035		Total		30431	

Source: Traffic Study (2013)

It was recorded that compliance levels along Port Harcourt-Aba-Umuahia-Enugu corridor for seat belt usage (table 5) had a compliance level of 51 percent and 48 percent respectively for cars and BAT using the road and like other routes it had low compliance level during the weekend. Compliance level was high on Mondays for cars and BAT but dropped gradually as the week progresses.

Along the Ilorin-Mokwa-Kafanchan corridor compliance level is low and stood at an average of 50 percent and 51 percent for cars and BAT respectively. The level of compliance was equally low too. This was reported on table 6.

The vehicular traffic on Okene-Lokoja-Abuja-Kaduna moving through the FCT is quite high and had high presence of FRSC operatives hence one would expect a relatively high level of compliance. However, what table 7 shows is different from the expected, as the average compliance level is 58 percent and 55 percent respectively for cars and BAT. Sunday too had significantly low level of compliance. Zaria-Funtua-Gusau-Sokoto corridor is quite a busy route in the Northwestern part of Nigeria. It had about the same volume of vehicular traffic as Okene-Lokoja-Abuja-Kaduna corridor, this is captured on table 8. Traffic volume is noted to be about the same volume from Tuesday through till Saturday.

 Table 5. Port Harcourt-Aba-Umuahia-Enugu

		Se	at belt use ca	ars		Seat belt	use buses a	nd trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	3847	1524	5371	72	3182	1998	5180	61
Tuesday	3841	3562	7403	52	2563	1927	4490	57
Wednesday	2894	3422	6316	46	2364	2718	5082	47
Thursday	3127	2342	5469	57	2138	2716	4854	44
Friday	3726	3647	7373	51	2394	2712	5106	47
Saturday	3261	5363	8624	38	1928	2536	4464	43
Sunday	2716	3984	6700	41	1827	2712	4539	40
Average			6751	51	Average		4816	48
Total			47256		Total		33715	

Table 6. Ilorin-Mokwa-kafanchan

		Sea	at belt use ca	ars		Seat belt	use buses ar	nd trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	2536	1822	4358	58	1827	1452	3279	56
Tuesday	1928	1983	3911	49	1728	1452	3180	54
Wednesday	1982	2812	4794	41	1622	1562	3184	51
Thursday	1928	1827	3755	51	1653	1627	3280	50
Friday	2812	1982	4794	59	1526	1452	2978	51
Saturday	1828	1988	3816	48	1453	1234	2687	54
Sunday	1232	1827	3059	40	1342	1982	3324	40
Average	•	•	4070	50	Average	•	3130	51
Total			28487		Total		21912	

Source: Traffic Study (2013)

Table 7. Okene-Lokoja-Abuja-Kaduna

		Sea	at belt use ca	ars		Seat belt	use buses ar	nd trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	7352	4251	11603	63	6352	4652	11004	58
Tuesday	6352	5142	11494	55	6126	5242	11368	54
Wednesday	6273	5342	11615	54	5362	4532	9894	54
Thursday	5893	2435	8328	71	5345	3142	8487	63
Friday	5362	3425	8787	61	4854	3218	8072	60
Saturday	3425	2516	5941	58	3748	3421	7169	52
Sunday	2637	3526	6163	43	2736	3645	6381	43
	•	Average	9133	58		Average	8911	55
		Total	63931			Total	62375	

Source: Traffic Study (2013)

Table 8. Zaria-Funtua-Gusau-Sokoto

		Sea	at belt use ca	nrs		Seat belt	use buses ar	nd trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	6988	3423	10411	67	5635	4521	10156	55
Tuesday	6783	2341	9124	74	5463	4231	9694	56
Wednesday	6373	3422	9795	65	4568	2451	7019	65
Thursday	5983	2342	8325	72	4536	3421	7957	57
Friday	5633	3647	9280	61	3489	2563	6052	58
Saturday	4532	5363	9895	46	3218	4352	7570	43
Sunday	3435	4573	8008	43	2889	4127	7016	41
Average			9263	61	Average		7923	54
Total			64838		Total		55464	

Like other corridors, the level of compliance was seen to be low during the weekend while the average compliance levels were 61 percent and 54 percent respectively for cars and BAT.

Table 9. Katsina-Kano-Misua

		Sea	at belt use ca	urs		Seat belt	use buses ar	Total Compliance level 5874 72 6115 67 5924 64 6363 57 8058 56 6184 44 5147 51 6238 59	
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level	
Monday	4536	3252	7788	58	4252	1622	5874	72	
Tuesday	3475	3242	6717	52	4123	1992	6115	67	
Wednesday	3827	2832	6659	57	3782	2142	5924	64	
Thursday	3419	3281	6700	51	3647	2716	6363	57	
Friday	4352	3822	8174	53	4532	3526	8058	56	
Saturday	3272	2436	5708	57	2732	3452	6184	44	
Sunday	2378	3262	5640	42	2633	2514	5147	51	
Average			6769	53	Average		6238	59	
Total			47386		Total		43665		

Source: Traffic Study (2013)

Level of compliance for BATs was seen to be higher when compared with that of cars on the Katsina-Kano-Misua corridor. On the average cars had 53 percent while BAT had 59 percent. Compliance levels too were seen to be low during the weekend. Table 9 has the result. More cars used this road than BATs as a total of 47386 were recorded for cars and 43665 for BATs.

Markurdi is the capital of Benue State, while Lafia and Jos are the capital cities of Nasarawa and Plateau States. These three states pride themselves as the food basket region of the country so it is not unexpected that they have more BAT traffic that they recorded for cars. From table 10, one can see that the average compliance level is 50 percent and 57 percent respectively for cars and BATs. It was also noted that cars recorded lower levels of compliance when

compared with BATs and weekend had the lowest levels of compliance when the compliance levels were viewed from the days of the week's perspective.

The far Southeastern part of Nigeria is the relatively quiet corridor of Abakaliki-Ogoja-Katsina Ala-Wukari-Jalingo highway.

The corridor not as busy as others as it had, recorded for it, just 21861 count of cars and 23523 BATs as total for the week the study lasted there. It had a poor rate of compliance level and could be as a result of poor enforcement and presence of the FRSC operatives in that part of Nigeria. The average rate of compliance for cars was 42 percent and for BATs was 48 percent. Weekends like other corridors had poor rate of compliance. Table 11 has the details.

Table 10. Makurdi-Lafia-Jos

		Sea	at belt use ca	ars		Seat belt u	ise buses and	d trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	2415	1892	4307	56	3524	1982	5506	64
Tuesday	2192	1289	3481	63	2716	1726	4442	61
Wednesday	1829	1817	3646	50	1672	1524	3196	52
Thursday	1982	2918	4900	40	1827	1728	3555	51
Friday	2318	1728	4046	57	2918	1762	4680	62
Saturday	1298	1822	3120	42	2671	1887	4558	59
Sunday	1273	1728	3001	42	1982	1897	3879	51
Average	•		3786	50	Average	•	4259	57
Total			26501		Total		29816	

Table 11. Abakaliki-Ogoja-Katsina Ala-wukari-Jalingo

		Se	eat belt use	cars		Seat belt	use buses a	and trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	1627	1821	3448	47	2817	1726	4543	62
Tuesday	1682	1726	3408	49	2451	1872	4323	57
Wednesday	1272	1822	3094	41	1872	1898	3770	50
Thursday	1283	1827	3110	41	1228	1192	2420	51
Friday	1273	1928	3201	40	1562	1345	2907	54
Saturday	1119	1726	2845	39	992	1882	2874	35
Sunday	928	1827	2755	34	788	1898	2686	29
Average	•		3123	42	Average		3360	48
Total			21861		Total		23523	

Source: Traffic Study (2013)

Table 12. Aba-Ikot ekpene-Uyo-Calabar

		Sea	at belt use ca	ırs		Seat belt	use buses and	d trucks
Day	Yes	No	Total	Compliance level	Yes	No	Total	Compliance level
Monday	2110	1822	3932	54	3522	2716	6238	56
Tuesday	1657	2712	4369	38	1272	1726	2998	42
Wednesday	1928	1827	3755	51	1772	1988	3760	47
Thursday	1726	1827	3553	49	1122	1728	2850	39
Friday	2171	1728	3899	56	2012	2637	4649	43
Saturday	1722	2182	3904	44	1928	1998	3926	49
Sunday	1273	1892	3165	40	1625	2718	4343	37
Average			3797	47	Average		4109	45
Total			26577		Total		28764	

Source: Traffic Study (2013)

The rate of compliance for Aba-Ikot Ekpene-Uyo-Calabar corridor (table 12) was gotten to be 47 percent for cars and 45 percent for BATs. This corridor equally had a poor rate/level of compliance.

b. Policy Violation based on Vehicular Types

The level of compliance was observed to vary along the corridors with vehicular types. The variations in level of compliance in the Seatbelt Usage Policy were observed to be higher in BATs than in cars (table 46).

Table13. Policy Compliance Levels

Policy	Compliance level (percentage)						
Seat belt use cars	58						
Seat belt use buses	60						

Source: Traffic Study (2013)

This could be attributed to the stricter level of enforcement meted out to commercial vehicles and most of the BATs captured in this study were used for commercial purposes. Many of the commercial traffic when caught violating the policy usually escape prosecution by bribing their way out. For them not to bribe they adhere to the policy and comply with it. Worthy of note is the fact that compliance to this policy is only being enforced for front occupants of the vehicles. The policy on use of crash helmet by motorcyclist was observed to have very poor level of compliance – 38 percent (table 13). This is poor but it should also be noted that the volume of traffic for motorcycles on the corridors studied was very low as these were highways. For overloading policy, the compliance level was poor too for all traffic (cars and BATs). Cars had 47 percent while BATs recorded 48 percent (table 13). It can be generally agreed that most Nigerian road users while driving their vehicles do not use their mobile phones. A breakdown using vehicular type showed that cars had 80 percent, BATs - 85 percent and motorcycles 96 percent (table 13).

6. Conclusion

The level of adherence to the FRSC Policies bothering on road use can be said to be relatively successful. This is so based on the level of compliance recorded across the nation. A total of one million seventy-nine thousand, four hundred and forty-eight (1,079,448) were counted in the study. This is made up of 526002 cars, 495204 BATs and 58242 motorcycles meaning forty-nine (49) percent, forty-six (46) percent and five (5) percent respectively. The busiest corridors were Abeokuta-Sagamu-Benin-Asaba (171,768), Lagos-Ibadan-Ogbomosho (164,836), Okene-Lokoja-Abuja-Kaduna (129,489). While the least travelled corridors were Abakaliki-Ogoja-Katsina Ala-Wukari-Jalingo (52,003), Ilorin-Mokwa-Kafanchan (54,919) and Aba-Ikot Ekpene-Uyo-Calabar (69,444).

Use of Seatbelts: It was discovered that the use of seatbelts recorded an average of fifty-eight (58)

percent level of compliance for car traffic and sixty (60) percent for BATs traffic. The use of seatbelt decline as the weekend approaches.

The degree of compliance did not vary too much from regions to regions going by the results along the corridors with certain policies but there is some degree of greater level of variation with some other policies. The average levels of compliance recorded for Lagos-Ibadan-Ogbomosho and Abeokuta-Benin-Asaba corridors were sixty-nine (69) percent. This rate was the joint best level of compliance for Seatbelt use. Abakaliki-Ogoja-Katsina Ala-Wukari-Jalingo and Aba-Ikot Ekpene-Uyo-Calabar corridors had 42 and 47 respectively. The worst recorded level of compliance for seatbelt use. The level of compliance variations recorded on some corridors cannot totally dissociate from the level of presence of FRSC operatives and enforcement styles adopted by respective FRSC Commands. This is because on the total number of sighted patrols (moving and stationed) counted varies and it was noted that corridors with more patrols had better levels of compliances (see table 15).

There might be other reasons for the variation of levels of compliance recorded along different corridors as well as reasons for the violation of the policies. These can be investigated in further studies. Violation of the policies can lead to economic and social loss to the individual households and collectively to the economic. For example, overloading can cause damage to road and vehicles. All these can be subjected to further investigation.

7. Acknowledgment

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Table15. FRSC Operations

	Lagos-Ibadan- Ogbomosho Seatbelt		Abeokuta- Sagamu- Benin- Asaba		Onitsha-Owerri- Aba		Port Harcourt- Aba-Umuahia- Enugu		Ilorin- Mokwa- Kafanch an		Okene- Lokoja- Abuja- Kaduna		Zaria- Futua- Gusau- Sokoto		Katsina- Kano- Misua		Makurdi- Lafia-Jos		Abakaliki-Ogoja- Katsina Ala- Wukari-Jalingo		Aba-Ikot Ekpene- Uyo- Calabar.	
Day	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S
Monday	2	2	2	1	1	2	1	1	1	1	2	2	1	2	1	2	1	1	1	1	1	1
Tuesday	1	2	1	3	0	1	1	1	1	1	1	3	1	1	1	2	1	1	1	1	0	1
Wednesday	0	3	1	2	1	2	1	3	0	2	1	3	0	2	1	3	0	2	0	1	1	1
Thursday	2	2	2	3	1	2	2	0	1	2	2	2	1	1	0	1	1	1	1	1	0	2
Friday	1	3	2	4	0	1	1	1	1	3	1	3	1	2	1	3	1	1	1	2	1	2
Saturday	1	2	1	1	0	0	1	2	0	1	1	3	0	1	1	2	0	1	0	0	0	1
Sunday	1	1	1	1	0	1	0	1	0	1	1	1	0	1	0	1	1	0	0	1	0	0
Sum	8	15	10	15	3	9	7	9	4	11	9	17	4	10	5	14	5	7	4	7	3	8

Source: Traffic Study (2013) Note: M – Moving Patrols; S – Stationary Patrols

References

- CARRS-Q, (2007), Aggressive Driving, State of the Road, Centre for Accident research & Road Safety-Queensland, Australia accessed online at www.carrq.qut.edu.au
- CSIR (1997), The Damaging Effects of Overloaded Heavy Vehicles on Roads published by: Council for Scientific and Industrial research, Department of Transport Directorate: Traffic Control, PO Box 415, PRETORIA 0001, Republic of South Africa.
- Edorhe, L. (2014), "Road Safety Policy Adherence Rate in Akure: Overloading" an undergraduate dissertation submitted to the Department of Transport Management Technology, Federal University of Technology, Akure Nigeria.
- 4. Ekeugo, C. (2008), "A Review of Accident Pattern in Imo State", an undergraduate dissertation submitted to the Department of Transport Management Technology, Federal University of Technology, Owerri Nigeria
- Faniran, A. O., Bello K. (2014) "Assessing Driver Behaviour Due to In-car Distraction – Case Study of Lagelu LGA, Oyo State Nigeria", a paper presented at the International Conference on Business

- Administration and Management, Bowen University, Iwo Nigeria between 28-30 May 2014. Paper number A224
- Mahmud Sohel S. M., (2011)," Road Safety Research in Bangladesh: Constraint and Requiremente", 4th Annual Paper Meet and 1st Civil Engineering Congress, December 22-24, 2011, Dhaka, Bangladesh ISBN: 978-984-33-4363-5 Noor, Amin, Bhuiyan, Chowdhury and Kakoli (eds) www.iebconferences.info
- 7. Stephens, M. S. and Ukpere, W. I. (2011), "Accidents and Level of Intelligence: a View from the Nigerian Experience", Journal of Human Ecology, 35(20: pp75-84)
- 8. ECA, (2015), Economic Report on Africa, United Nations Economic Commission for Africa
- Vassallo, J. M., Rangel, T. de Villar, P. P. and Arenas, B., (2009), "Do PPP Contracts Improve Road Safety" a research paper by Universidad Politecnica de Madrid sponsored by Eurpean Investment Bank.
- Whitelegg, John (1983), Road Safety: Defeat, Complicity and the Bankrupct of Science. Accident and Safety Vol 15 No. 2 pp 53-60 Pergamon Press Ltd, Great Britain.