

Road Users' Perception of National Transport and Safety Authority Road Accident Reduction Strategies in Kenya

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Abstract

Most fatalities and disabilities across the world have been attributed to road traffic accidents. The total number of road traffic deaths in 2015 was 1.3 million ranked tenth cause of deaths in the world after heart diseases, cancer, respiratory diseases, diabetes among others. Studies show that causes of road traffic accidents are attributed to a poor driving culture, driving under influence of alcohol, overloading in public service vehicles, natural occurrences, poor road conditions and inadequate enforcement of existing traffic laws. This study sought to examine the road users' perception on National Transport and Safety Authority road accident reduction strategies in Kenya. The study applied a cross-sectional survey design. The sample size of the study included 110 stakeholders from the transport sector. Stratified and random sampling procedure were used to select the sample from various categories of stakeholders. The study employed questionnaire method to collect data from the respondents. To ensure that the data collection instrument was valid, content validity was used. Split-half method was used to estimate reliability of the questionnaire where a Pearson's Product Moment Correlation Coefficient value of 0.85 was obtained, meeting the reasonable threshold of 0.7. Thus, the instruments were considered reliable. Data from questionnaires were coded and processed with the help a statistical application, namely SPSS, Ver. 21. The results were reported in frequencies and percentages. The study revealed that NTSA had put in place a number of road safety strategies including use of Breathalyzers, speed gun and SACCOs. However, the road users' perception on NTSA's road accident reduction strategies remained varied owing to lack of sound road safety implementation mechanisms and a general negative attitude and beliefs among passengers and motorists. Thus, there is a need for various stakeholders in transport industry to conduct ongoing road safety campaigns to change road users' perception about various strategies that NTSA uses.

Keywords: *National Transport and Safety Authority (NTSA), Road Traffic Accidents (RTAs), road transport, Kenya road accidents, passengers and motorists, road traffic act, Breathalyzers, speed gun, Kenya Matatu Industry, Transport Industry SACCOs.*

1. Introduction

Even though Kenya has a traffic Act that offers the legislative framework that focuses at desired driving standards to ensure there is safety on Kenyan roads (Laws of Kenya 403-6), over 3,000 deaths from road accidents occur annually of which about 40% are pedestrians and 22% are passengers. This accounts to the economic cost of 5.6% of the GDP that translates to 300 billion Kenya shillings every year (NTSA, 2016). A greater percentage of these people who die are at the economic productive age, between 15 and 44 years. The Global status report on road safety 2015, reflecting information from 180 countries, indicates that worldwide, the total number of road traffic deaths has plateaued at 1.25 million per year, with the highest road traffic fatality rates of more than 90% occurring in developing countries (WHO, 2016).

In 2010, the European Union (EU) reestablished its dedication to improve road safety by setting an objective of diminishing road deaths by half by 2020, contrasted with 2010 levels. This objective took after a before target set in 2001 to halve road deaths by 2010. Of the 32 countries covered 21 had an increase in the number of fatalities in 2015, 10 had a decrease, and 1 remained unchanged (Dovile, Grazialla, Henk & Heather, 2016). The original EU report includes the UK as having an increase in fatalities, but this was based on provisional figures for the year ending September 2015. Overall, the total number of road deaths in the 28 members of the European Union during 2015 was around 26,300 (Department for Transport, 2016). This marked the first increase in the annual total fatalities since the PIN Programme started in 2001. There were 27.4 per million people in Great Britain in 2015, a little change from 27.9 in 2014. The United Kingdom as a whole had 27.7 deaths per million inhabitants in 2015. The only European countries with a better rate than this in 2015 were Sweden, with 26.6, Malta, with 25.6, and Norway, with 23.1. Both Malta and Norway have very low numbers of deaths each year (with 11 in Malta and 117 in Norway in 2015) so these rates are likely to vary significantly between years. The UK and Sweden have been reliably at the head of this table for various years. On the other hand, in 2012 the death rate in the United States (108 per million) as a result of road accidents was around 4 times higher than that in the UK (28 per million) (Mathew & Tom, 2013).

Western, Central and Eastern sub-Saharan Africa has the highest road injury death rates of any global region (Kavi, James, saeid, Jerry & David, 2014). The death rate in Western sub-Saharan Africa is more than four times the rate in Western Europe. Road injuries are the eighth (8th) leading cause for death in sub-Saharan Africa and the tenth major cause of sound life years lost. The public health burden of road injuries exceeds that from tuberculosis and maternal disorders. Pedestrians comprise 44% of road deaths in sub-Saharan Africa, substantially more than the global average of 35% (Pon-Hsiu, Mohsen, Rafael, Theo, Phillips, Chou & Bollinger, 2014). The rate of pedestrian deaths in Western sub-Saharan Africa is 8 times the rate in Western Europe. Nigeria has the most noteworthy road injury death (52.4 for each 100,000 individuals) of any nation all around. Mozambique has the third highest death rate (46.7 per 100,000) (Diego, Brittany & Christopher, 2014). These rates are more than 15 times the demise rates in Sweden, UK, and the Netherlands, which have among the least traffic road death rates internationally.

Four countries; Nigeria, Ethiopia, South Africa, and Sudan together account for half the road injury death toll of sub-Saharan Africa (Kavi, James, saeid, Jerry & David, 2014).

Over the last fifty years Kenya has been suffering deaths from the road accidents and many of her citizens have suffered great injuries leading to a serious negative economic implication. It is yet not clear whether the traffic institutions and the National Transport and Safety Authority (NTSA) strategies are effective in reducing road accidents in Kenya. Kenya loose US\$4 billion annually due to road traffic fatalities (Charles, 2013). A WHO final report 2015 on global road fatalities indicated that Kenya road death tolls was ranked among the highest in the world (29.1 per 100 000 population) after Tanzania and Rwanda with 32.9 and 32.1 deaths per 10 000 people respectively (Redfern, 2015). The National Transport and Safety Authority road safety status report 2015 shows that 3,057 died in 2015 compared to 2,907 in 2014 (NTSA, 2016). The same report indicates that the number of deaths that resulted from road accidents and injuries in 2005, 2010 and 2015 are 2533, 3045 and 3057 respectively. This shows that Kenya is on an increasing trend of road fatalities despite the introduction of the National Transport and safety Authority which was established through an Act of Parliament; Act Number 33 on 26th October 2012 with a vision to offer sustainable and safe Road Transport System with Zero crashes. Therefore, basing on this background the study sought to establish the Perception on National Transport and Safety Authority (NTSA) Road Accident Reduction Strategies in Kenya from Passengers and Motorists Perspectives.

2. Methodology

The study applied a cross-sectional survey design to establish the users' perception of NTSA's road safety strategies. This design involves collection of information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2003). This design enabled the researcher to have a systematic collection and analysis of data so as to establish the road users' perception on NTSA's road safety strategies in Kenya. The sample size included one hundred and ten (110) stakeholders in the transport sector. Stratified random sampling procedure was used to select the sample from various categories of stakeholders. The researcher used questionnaire method to collect data. Content validity of data collection instrument was ensured by the use of expert opinion of the university supervisors. To ensure reliability of the instrument, the researcher used the test-retest method. In testing of the instrument, Pearson's Product Moment Correlation Coefficient Statistical technique was employed where a reliability coefficient of 0.85 was obtained which is higher than the reasonable threshold of 0.7. Data were analyzed using Statistical Package for the Social Sciences (SPSS) and results were presented in frequencies and percentages. The researcher ensured confidentiality among respondents by using the data collected only for the purpose of the study. Other ethical consideration like anonymity in dissemination of research findings was assured.

3. Results

3.1 Demographic Characteristics of the Respondents

Demographic information included gender and age brackets of the respondents. Slightly less than

two third (63%) of the respondents were male and the remaining 37% of them were female. On respondents age bracket, 59% of them were between 25-35 years, another 22% of them were between the age of 35-50 years, while 16% of them were between 18-25 years. Only 3% of them were over 50 years of age.

3.2 Perception on NTSA's Road Accident Reduction Strategies

The study sought to examine passengers' and motorists' perception on NTSA's Road Accident Reduction Strategies. The respondents indicated their responses on various statements related to NTSA's Road Accident Reduction Strategies.

Road user's perception of NTSA's road accident reduction strategies

Item	SA	A	UD	D	SD
Well conversant with NTSA road accident reduction strategies	18%	37%	21%	16%	8%
Driving beyond limits poses risk of accidents	42%	26%	17%	12%	3%
Management of transport industry through SACCOs will help reduce accidents	44%	25%	15%	11%	5%
Breathalyzer will help reduce accidents	6%	21%	53%	9%	11%
Use of speed guns help drivers from speeding hence avoiding accidents	20%	50%	12%	10%	8%
Majority of the accidents are caused by nature	6%	9%	53%	21%	11%

Key: SA- Strongly Agree, A- Agree, UD- Undecided, D- Disagree, SD- Strongly disagree

Slightly more than a half (55%) of the respondents "agreed" and "strongly agreed" that they were conversant with NTSA strategies, 24% of them "disagreed" and "strongly disagreed" with the item while the remaining 21% were "undecided". When asked whether driving beyond limits posed risk of accidents, 68% of them were positive while the another 16% were negative.

In regards to whether the management of transport industry through SACCOs helped in reducing accidents, 69% of the respondents agreed that it did. Only 16% of them felt that SACCOs was not much of help.

With reference to whether breathalyzer helped in reducing accidents, 53% were "undecided". Another 27% of them felt that it helped to reduce accidents. However, 20% disagreed that it did not help to reduce accidents. On the question of whether use of speed guns helped drivers from

speeding hence avoiding accidents, 70% of them were positive However, 18% of them felt that this did not help much.

In regards to whether majority of the accidents are caused by nature, 32% of the respondents disagreed. However, 15% of them felt that most of the accidents are caused by nature. Over half (53%) were undecided.

4. Discussion

The study findings showed that 45% of the respondents indicated that they were either not conversant with NTSA road accidents reduction strategies or not decided on their view towards these strategies. This is a worrying trend as it could be a reason why there are increased deaths resulting from road accidents among motorists and passengers in Kenya. This finding agrees with a study conducted by Agbonkhese, Yisa, Agbonkhese, Akanbi, Aka and Mondigha (2013) on causes and preventive measures of road traffic accidents in Nigeria which found that lack of awareness on road safety amongst road users had led to many deaths from road accidents. However, a study that was carried out by Asalor (2010) on improved road safety in Nigeria found that contrary to the general belief that Nigerians possess very low level of awareness on the causes of road traffic accidents, Nigerians know quite a lot about what could cause road traffic accidents but they are ignorant. Therefore, there is a need for NTSA to organize awareness campaigns on road safety measures amongst passengers and motorists. Further, ignorant road users should also be warned on the dangers that their ignorance can cause.

Over two third, (68%) of the respondents agreed that driving beyond speed limits posed risk of road accidents. This concurs with an earlier study conducted by Massachusetts Traffic Safety Research Program (2005) in which found that speeding is one of the most prevalent factors contributing to traffic crashes around the world. The study further indicated that speeding plays out a big percentage of all fatal crashes which translates to huge loss of lives in speeding-related crashes. This is also in agreement with another survey carried out by Sprattler (2012) on risks of speeding and speeding-related fatal crashes in United States which found that speeding is one of the most prevalent factors contributing to serious and fatal crashes, yet it does not command nearly as much attention as other safety issues such as alcohol-impaired or distracted driving. Further the survey found that the speed limit vary from one state to another ranging from 70 Km/h to 85Km/h and established that although speed governors are mandatory in all vehicles there are road accidents.

Majority of the respondents (69%) agreed that management of transport industry through SACCOS will help reduce roads accidents. This is in agreement with a study conducted by Graeff (2009) which indicated that government introduced SACCOS in the matatu sector as one of the reforms strategy that targeted to manage transport systems. A study carried out by Chitere & Kebab (2004) on efforts to improve road safety in Kenya found that most drivers and conductors do not observe traffic rules and are responsible for many accidents in both rural and urban areas but through SACCOS they are well managed. Thus, SACCOS play a vital role towards controlling “madness” in the matatu industry.

Slightly more than half (53%) were undecided that breathalyzer will help reduce accidents in Kenya. This is in agreement with a report by WHO (2004) on road traffic injury prevention which indicated that breath-testing devices that provide objective evidence of blood alcohol concentration (BAC) are the most effective enforcement tool although they are used in most high-income countries but not in most low-income and middle-income countries. Thus, there is a low sensitization on how breathalyzer works and its impact on reducing road accidents in developing countries, Kenya based on the level of the respondents who were undecided on whether they are effective. The finding is an indication of certain level of ignorance or lack of knowledge about the role of breathalyzers in reducing road accidents in Kenya.

Over 70% of the respondents agreed that use of speed guns helped drivers from speeding hence avoiding accidents. The speed gun being used by traffic officers in Kenya is a new technology that allows for audio visual recordings and still photographic evidence hence leaving no room for over-speeding and corruption as well (Kimaru, 2013). Through continuous monitoring of the vehicles' speed, the traffic police are able to get hold of drivers whose vehicles exceed the required speed limit. This has helped to minimize accidents along highways in Kenya.

Although 53% of the respondents were undecided on whether majority of the accidents are caused by nature, 15% of them agreed. This view is common among a number of people in Africa as previous findings show. Some studies from African countries confirm that beliefs on nature as cause of road traffic accidents are prevalent and therefore posing danger to road safety strategies. Studies from Nigeria, Ivory Coast and South Africa (Kouabenan, 1998; Dixey, 1999; Peltzer & Renner, 2003; Peltzer, 2004) found that fatalism and other mystical beliefs are potential barriers to enhancing road safety and participation in health-promoting behaviors. Such beliefs are expected to obstruct road safety efforts, since individuals may consider the struggle against nature to be futile because events like road crashes are believed to be inevitable and predetermined, and may also promote resistance to interventions which attempt to change behavior (Kayani, King, & Fleiter, 2012).

5. Conclusion

The study found there various road safety control mechanisms that have been put in place by NTSA including use Breathalyzers, speed gun and SACCOS. While such efforts have been fronted, the perception of passengers and motorists about NTSA's Road Accident Reduction Strategies are still varied. This could be attributed to either lack of sound road safety implementation mechanisms by NTSA and associated institutions or general negative attitude and beliefs among passengers and motorists. Thus, there is need to embrace a participatory approach to address the issue of perception among passengers and motorists. Thus, there is a need for various stakeholders in transport industry to conduct ongoing road safety campaigns to change road users' perception about various strategies that NTSA uses.

References

- Agbonkhese, O., Yisa, G., Agbonkhese, E., Akanbi, D., Aka, E. & Mondigha, E. (2013). Road traffic accidents in Nigeria: Causes and preventive measures. *Civil and Environmental Research Journal* 3 (3), 90-99.
- Asalor, J. O. (2010). *Towards improved road safety in Nigeria*. Porto-Novo: University of Benin.
- Charles, G. (2013). *Combating road traffic accidents in Kenya: A challenge for an emerging economy*. Retrieved from http://kessa.org/yahoo_site_admin/assets/docs/17_Manyara_KESSA_Proceedings_2013.25183342.pdf.
- Charlton, S. & Starkey, N. (2011). Driving without awareness: The effects of practice and automaticity on attention and driving. *Traffic Psychology and Behaviour*, 14 (2), 456-471.
- Chitere, O. & Kebab, N. (2004). *Efforts to improve road safety in Kenya: Achievements and limitation of reforms in the mutata industry*. Nairobi: Government press.
- Dixey, R. A. (1999). Fatalism, accident causation and prevention: issues for health promotion from an exploratory study in a Yoruba town, Nigeria. *Health Education Research, Theory & Practice*, 14 (2), 197-208.
- Department for Transport (2016). *Reported road casualties in great Britain: Main results 2015*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/533293/rrcgb-main-results-2015.pdf.
- Dovile, A., Grazialla, J., Henk, S. & Heather, W. (2016). *Ranking EU progress on road safety: 10th road safety performance index report*. Retrieved from <http://etsc.eu/wp-content/uploads/10-PIN-annual-report-FINAL.pdf>
- Kayani, A., King, M., & Fleiter, J. (2012). Fatalism and its implications for risky road use and receptiveness to safety messages: a qualitative investigation in Pakistan. *Health Education Research*, 4(2), 88-94. doi: 10.1093/her/cys096
- Kouabenan, D. (1998). Beliefs and the perception of risks and accidents. *Risk Analysis*, 18(3), 243-252.
- Mathew, K. & Tom R. (2013). *Reported road accident statistics*. Retrieved from <http://researchbriefings.files.parliament.uk/documents/SN02198/SN02198.pdf>.

- NTSA (2016). *National Transport and Safety Authority road safety report 2015*. Retrieved from <http://www.ntsa.go.ke/2016/Downloads/FINAL%202015%20ROAD%20SAFETY%20STATUS%20REPORT.pptx>
- Orodho, J. (2004). *Elements of education and social science: Research methods*. Nairobi: Masola Publishers.
- Sprattler, K. (2012). *Speeding and aggressive driving. A survey of the States*.
- Peltzer, K. & Renner, W. (2003). Superstition, risk-taking and risk perception of accidents among South African taxi drivers. *Accident Analysis and Prevention*, 35(6), 19–623
- WHO (2016). Global status report on road safety 2015. Retrieved from http://www.who.int/violence_injury_prevention/road_safety_status/2015/GSRRS2015_Summary_EN_final2.pdf?ua=1
- WHO (2004). World report on road traffic injury prevention. Retrieved from http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/summary_en_rev.pdf.
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Suggested Citation:

Mogire, R.M. (2017). Road Users' Perception of National Transport and Safety Authority Road Accident Reduction Strategies in Kenya. *Journal of Management and Business Administration*, 2(1). Retrieved from <http://writersbureau.net/journals/jmba/road-users-perception-of-national-transport-and-safety-authority-road-accident-reduction-strategies-in-kenya.pdf>