Robust Data Management- Sine Qua Non for Sustainable Road Safety in Nigeria

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ABSTRACT
This paper makes a case for robust data management in Nigeria as well as presents road safety approaches that required data collection, analysis, management, sharing and dissemination for sustainable road safety in Nigeria. It therefore points out the relevance of data management for worthwhile safety programme. This paper advocates for a veritable database with reliable, accurate and up-to-date information on road traffic crashes, mortality rate, high risk areas, driver's license, vehicle population, road audit survey, traffic count, offenders, offences, personnel and other important details which can be stored, retrieved, updated, maintained, processed and shared for comprehensive analyses as well as make evidence-based policies on road safety issues in a sustainable way.

Key Terms: Data Management, Sustainable, Road Safety, Population, Road Audit, Nigeria

INTRODUCTION
In this era of information communication and technology, the importance of data in shaping almost every aspect of human life cannot be overemphasized. Data are vital for the provision of clear, objective and numerical evidence on all aspect of our lives. The usefulness of data cut across the entire sector of economy such as manufacturing, health, business, and engineering even in transport to mention but few. Emphasis is on the transport sector as it is the main mover of the Nigeria's economy and indeed of any economy in the world. Road transport is the most predominant mode of transportation in Nigeria and constitutes over eighty percent in movement of persons, haulage and service. The neglect in other modes of transportation has put more pressure on road transport sector (Olajungu). This generates serious maladies such as road traffic crashes, obstructions and traffic congestions on the road. Road safety administration cannot function efficiently without data. This necessitated the need to collate and manage current data for effective road safety management. It is on this premise that this paper seeks to examine the importance of robust data management for sustainable road safety in Nigeria.

LITERATURE REVIEW
Federal Road Safety Corps (FRSC) is the lead agency in Nigeria for road traffic management and safety administration. It is tasked with a mandate to ensure outright elimination of road traffic crash incidence or else its reduction to the barest minimum. In pursuit of this mandate, the organization carries out a host of activities, including public enlightenment, highway patrol, rescue services, motor vehicle administration, stakeholders' engagements, etc. Inadequacies in agencies saddled with road safety functions in the seventies are significant and responsible for failure to check the ugly incidence (road traffic crash). Notable one among them is insufficient data. The natural result of the aforementioned road safety activities is data. It aids decision making process as well as monitoring and evaluating the progress of policies and programmes for suitable intervention. Data are required in road safety practice to determine the actual cause of traffic crashes, identify priority areas/location, formulate strategies, set targets and monitor performance.

Gathering and maintaining this information is a major challenge. Steps are required to make all relevant parties – agencies, institutions and organizations responsible for collection, documentation, analysis, storage, preservation, upgrading and accessibility of
data in the transport sector to work in concert towards providing Nigeria with a transport database (Badejo)\(^2\).

**OBJECTIVES**

- to look at the relevance of robust data management for sustainable road safety in Nigeria;
- and the current strategies adopted in achieving sustainable road safety

**METHODOLOGY**

The paper relied on secondary data retrieved from FRSC annual reports, published journal and other relevant archives.

FRSC has migrated to electronic record keeping and this effort has enhanced service delivery and operational capability which has translated to the reactivation of the driver license database which now hosts over 3 million records and the development of a road traffic accident suit to capture accident data.

**DATA ANALYSIS**

- **Relevance of Data Management**

  One of the fundamental of sustainable road safety is the establishment of a comprehensive database to capture relevant data which would aid documentation and monitoring of the motoring public. The database ideally needs to capture details on road traffic crashes, mortality rate, high risk areas, driver’s license, vehicle population, road audit survey, traffic count, offenders, offences, personnel and other important details necessary for planning, monitoring and development.

  It is necessary to enhance the management of data on road crashes, injuries and fatalities so as to design evidence-based policies. Thus there is need to collect data on all aspects of road traffic incidents so as to build a comprehensive database from which relevant statistics can be derived to establish targets for road safety action programmes (The voice of safety)\(^3\).

  Availability of a current database would go a long way in surmounting many of the road safety challenges confronted by the country today. Proper data management is essential for improving road safety planning and for offering appropriate countermeasures by concerned bodies. In view of the above, efforts should be made to address under reporting of crashes, and to ensure data from different sources are harmonized.

  Furthermore, relevant agencies and other stakeholders make use of data to identify risk factors, assess intervention programmes, monitor and evaluate progress on road safety programmes (The voice of safety)\(^3\). Roads safety activities could be truncated when data are not sufficient to address road safety issues.

- **Achieving Sustainable Road Safety in Nigeria**

  The Bruntland’s definition of sustainable development as ‘development that answers to the needs of the present generation without harming the possibilities of future generations to answer to their own needs’ informed the choice of the term ‘sustainable’. This paper focuses on road safety practice that relies on the sustainable safety approach which provides an increasingly safer road traffic environment (not only for the present but also for its future users). It is based on this idea that the topic is given holistic view so the benefit of the next generation will not be compromised.

  The Sustainable Development Goal (SDG) era affords major players in Nigeria’s transport sector especially FRSC to key into SDG Goal 11, target 2 as an avenue to guarantee safe, accessible and sustainable transports system by 2030 for all especially those in vulnerable situation.

  As earlier mentioned, to guarantee sustainable road safety in Nigeria, FRSC is working with sister agencies and other relevant agencies in the transport sector. Some of its efforts are highlighted below.

  FRSC embraced information communication technology as tool for its operations and administration in order to strengthen its capacity as a lead agency in road safety administration in Nigeria. The technology is utilized in collating and managing data for effective road safety management. A unit called Information Technology Centre (ITC) was established and housed data management and networking infrastructure of the organization to facilitate the field operations, rescue activities and on-line verification of the driver’s licenses and plate numbers for security purposes.

  By January, 2013, the Dashboard was upgraded to e-Dashboard which provides a platform for real time online rendition of information used for prompt policy decisions. In September, 2013 the Corps commenced e-Enforcement with the deployment of ICT to FRSC patrol operations. To actualize this, tablets with application software were used to capture and manage data relating to road traffic violators/violations.

  The FRSC (Corps) synergizes with the Federal Ministry of Environment in the area of the excessive automobile emission control. To achieve this, it supplies some basic information relating to traffic volume and intensity of pollutant emissions on road corridors based on its statutory power. (Chidoka)\(^3\).

  The Corps supplies data on road traffic crashes to the National Bureau of Statistics. This data is essential for various development programmes. In continuation, it works synergistically with the Nigeria Police in the area of crash data sharing, data on suspected stolen vehicles and drivers through the driver’s license and vehicle registration.

  Lastly, it carries out road safety audit on major Nigerian highways and the outcomes of the audit data resulted to the identification of eighteen (18) high-risk road corridors. This helps to priorities patrols and interventions on these spots. Thereafter analyses are forwarded to the Ministry of Works and Transport as recommendations. These efforts have helped in the rehabilitation of some of the major roads in Nigeria.

**CONCLUSION**

Data infrastructure cannot function in isolation; it has to be deployed alongside personnel, who should be adequately equipped with basic knowledge on data management for them to operate it efficiently and effectively. On this note, it is essential for relevant agencies in traffic data management to be well funded in terms of human capacity building and information communication technology deployment for them to perform
productively in the course of making our road safe for the next generation.

REFERENCES


