

## Short Communication

# Managerial appraisal of the provision and use of fire extinguishers by motorists along Benin-Asaba expressway in Nigeria

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**Good management of human resources also includes taking measures and steps that would help to protect life and prevent all possible events that might lead to loss of life or injury or deformity. Accident prevention must therefore be taken very seriously especially the type that involves victims being trapped inside a burning vehicle, without any viable means of putting off such fire, like, a functional fire extinguisher. It is on this premise that this research was predicated, to investigate the Managerial Appraisal of the provision and use of fire Extinguishers by motorists along Benin-Asaba Expressway in Nigeria. The research was conducted between July 1 and September 2012 along Benin-Asaba Expressway in Nigeria, specifically at five Road Safety Check Points, in collaboration with the Nigerian Road Safety Corps based in Benin, Agbor and Asaba. The driver of each car intercepted was requested to (1) Show the fire extinguisher of his/her car. (2) To demonstrate how to operate the fire extinguisher. Thereafter the true functionality of the fire extinguisher was ascertained and certified by the researchers/Road Safety Corps Officers. A total of 2878 cars were intercepted and checked, out of which 2618 had fire extinguishers. Structured Interview/question guide and check-list, were the data collecting techniques used for the study. The data collected were analysed using frequency counts and percentages. Results, show that only few of the male drivers lacked knowledge of how to operate the fire extinguishers in their cars, while the worst offenders were the female drivers. Recommendations were made.**

**Keywords:** Fire extinguishers, partial disability temporal disability, total disability accident prevention.

## INTRODUCTION

People use motor vehicles to workplaces, school, market, church and the like; people get hurt on the road by cars. Some of such victims are hurt temporally, some permanently and some die from their injuries (Levy Dianan and Shirreffs 1998) when one also considers the difficulties involved in managing a sick relative/staff, who survived a car accident of which severe burns was part of the injury sustained, then one would appreciate the need to prevent such accidents. Any form of incapacitation resulting from injuries sustained in an accident results to losses of valuable man hours wasted on hospital sick bed, loss of property, psychological trauma etc. such loss

ranging from, valuable man-hours when quantified monitorily, runs into Billions of Naira or other currencies equivalent, very difficult to recover or reclaim.

Some risks of having an accident are involved in nearly every activity of life, among which is driving a car. Human beings influence their risks and safety by the choices they know and follow. It is on this premise that Foresman (1997) stressed that being trapped in a burning car/vehicle is one of the worst accident that could happen to an individual. It then becomes imperative to provide a functional fire extinguisher in ones motor-vehicle for use in case of fire out-break involving ones vehicle or other

peoples vehicles. Moreover, it is important that one knows how to use or operate any fire extinguisher provided in ones car.

The majority of car fire accidents could be prevented or largely controlled, if fire extinguishers are provided in cars and the drivers being knowledgeable of how to use the fire extinguishers. The use of fire extinguishers in cars help to reduce unnecessary escalation of the fire and the resultant hardship further damage to the car itself (Merki and Merki, 1997) in car fire outbreak, risks involves either the driver, passengers, the car itself and Luggages, or any combination of these and is reflected as unexpected or unforeseen occurrence that interrupts an activity of transportation. The loss due to such fire accidents is usually colossal in the form of pain, loss of life, loss or reduction in earning capacity. The pain and the suffering of the injured as well as the emotional trauma to the victims of the fatalities and accidents causing incapacitation or disabilities, are difficult to be quantified or evaluated. Possible fire out breaks that may likely result during a car accident must be taken very seriously, considering the monumental loss that may accompany such an accident.

On humanitarian grounds possession of functional fire extinguishers often serve as a means of helping others in need, for example in a case of an accident in which even the driver may be trapped he/she may not be able to operate the available fire extinguisher, other drivers of other vehicles with fire extinguishers often use their fire extinguishers to help such trapped accident victims. What this means is that provision of functional fire extinguishers in our cars is highly inevitable. Moreover possession of functional fire extinguishers should be seen as a part of the safety devices in every road-worthy cars/vehicles, considering the fact that car fire out breaks during an accident could result to painful death, partial disability, temporal disability or total disability (Jain and Rae, 2008).

Drivers should therefore be taught how to use the fire extinguishers installed in their vehicles in case of car fire out break during an accident. Driving motor vehicles subjects the driver to situations in which accidents may occur at any moment that could result to injury (Prentice, 1999).

Fire out-breaks during car accident usually cause very serious injuries, some of life threatening magnitude.

Equally there are occasions when motor vehicles fire out break may be caused by faulty electrical connections in the car without necessarily being caused by motor vehicle colliding with another. Incidents involving, motor vehicles are the leading cause of death of people between ages 1 – 29, the leading cause of paralysis due to spinal injury and the leading cause of sever brain injury (Faley and Roth, 2003). According to Payne Hahn and Maner (2005) the greatest number of injury resulting to deaths in the United States of America occur on the highways and streets. Since there are no accurate

records in Nigeria, the trend may not be different, however the result of this research may help to throw some light on what the Nigerian situation may look like.

### **Instrumentation**

The research was conducted between July 1st and September 2012 along Benin-Asaba Expressway. It was done specifically at five road safety check – points. The research was conducted in collaboration with the express permission of the Nigerian Road Safety Corps based in Benin, Agbor and Asaba.

Each of the cars flagged down at the check points were requested to certify the following:-

1. Show the fire extinguisher of his/her car
2. Operate the fire extinguisher.

Therefore the true functionality of the fire extinguisher was ascertained or certified by the researcher and the Road Safety Corps Officer.

In all a total of 2878 (two thousand eight hundred and seventy-eight) cars were intercepted and checked, out of which 2618 had fire extinguishers, while only two hundred and thirteen (213) cars were driven by females. Structured interview and practical experience were the two data collecting techniques used for the study. An interview question guide and check-list were prepared and used for recording the respondents (participants) responses and the observed functional and non-functionality of the fire extinguishers as well as the drivers knowledge ability of how to operate the fire extinguishers.

### **Method of Data Analysis:**

The data collected were analyzed using frequency counts and percentages.

## **RESULTS**

The number of cars with/without fire extinguishers and their functionality (N = 2878).

Table 1 indicates that a total of 2878 cars were checked, out of which 2618 or 91.0% had fire extinguishers, while only 260 or 9.0% were plying the road without fire extinguishers only 1,801 representing 68.8% were functional, while 817 or 31.2% had non-functional fire – extinguishers. Table 2.

When the functionality of the fire extinguishers was considered based on gender, it was observed that females drive vehicles with non-functional fire extinguishers more than their male counterparts 59.6% versus 28.7% as revealed in the table above.

In table 3 above, a total of 2007 drivers representing 76.7% were knowledgeable of how to operate the fire extinguishers in their cars, while 23.3% (611) of them were

**Table 1.** Number of cars with or without fire extinguishers and those with or without functional fire extinguisher

Fire Extinguisher	Availability		Functionality	
	Available	Not Available	Functional	Not functional
Number	2618	260	1801	817
%	91.0%	9.0%	68.8%	31.2%

**Table 2.** Gender Consideration on the fire extinguishers state of functionality

Fire-extinguishers	Male(N= 2405)		Female (N = 213)	
	Functional	Non-functional	Functional	Non-functional
Number	1715	690	86	127
%	71.5	28.7	40.4	59.6

**Table 3.** Drivers knowledge of how to operate their fire extinguishers (N = 2618)

Drivers fire extinguishers operations	Knowledgeable	Not- Knowledgeable
Number	2007	611
%	76.7	23.3

**Table 4.** Drivers knowledge of how to operate their fire extinguishers based on gender

Fire-extinguishers	Male (N = 2405)		Female (N = 213)	
	Functional	Non-functional	Functional	Non-functional
Number	2,313	92	77	136
%	96.2	3.8	36.2	63.8

ignorant of how to operate their fire extinguishers.

Table 4 shows that more females drivers 63.8% (136) were not knowledgeable of how to operate their fire extinguishers, than their male counterparts 3.8% (92).

## DISCUSSION

According to Foresman (1997) he said that the worst type of accident that an individual could be involved in is being trapped in a burning motor car or vehicle, without any reliable means of quenching the blaze, such as fire extinguishers. It was therefore the aim of this study to find out the extent to which drivers of vehicles plying the Benin-Asaba Express way, complies with the rule of having a functional fire extinguisher in their vehicles at any given time, and equally being knowledgeable on how to operate such fire-extinguishers in case of emergency.

Table 1 which revealed the number of cars with or without fire extinguishers and their functionality, depicted that out of a total of 2878 cars stopped and inspected 2618 or 91.0% had fire extinguishers while 260 or 9.0% had no fire extinguishers at all. Furthermore it was revealed that only 1801 or (68.8%) of the fire extinguishers were functional, while 817 or 31.2% of

them, were not functional.

Table 2, which considered the state of fire extinguishers functionality based on gender, revealed that the females were the worst offenders of possessing non-functional fire extinguishers, males 28.7% as against females 59.6%.

Table 3, which dealt with drivers knowledge of how to operate the fire extinguishers in their cars, showed that out of the 2618 drivers that had fire extinguishers in their vehicles only 2007 or 76.7% of them know how to operate the functional fire extinguishers, while 611 or 23.3% do not know how to operate them.

Table 4 went further to analyse the drivers knowledge of how to operate the fire extinguishers based on gender, and it was discovered that again majority of the female driver lack basic knowledge of how to operate the type of fire extinguishers available in their vehicles (63.8%) as against males (3.8%).

## RECOMMENDATIONS

1. State governments are advised to build into the fee charged for renewal of vehicle particulars/issuance to include functional fire

extinguishers to vehicle owners. Through this method every vehicle owner, who goes to renew his/her vehicle particulars must be given one certified functional fire extinguisher at the same time.

2. The manufacturers of fire extinguishers must be compelled to post their technicians at point of distribution of their products to explain to customers how to operate the fire extinguishers.
3. During womens Annual August general meetings, resource persons should be engaged to teach the women how to operate various types of fire extinguishers practically.
4. Government should subsidize the cost of fire extinguishers, so that it would be commonly available everywhere, even in poor peoples homes.

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