

**ASSESSMENT OF SAFETY PRACTICES AMONGST AUTOMOBILE DRIVERS AND  
TRICYCLE RIDERS IN MINNA METROPOLIS, NIGER STATE**

**BY**

**IDRIS, Hafiz  
2016/1/63726TI**

**DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION  
FEDERAL UNIVERSITY OF TECHNOOLOGY, MINNA**

**APRIL, 2023**

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**A RESEARCH PROJECT SUBMITTED TO THE  
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION  
FEDERAL UNIVERSITY OF TECHNOOY, MINNA**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF  
BACHELOR OF TECHNOLOGY DEGREE (B. TECH) IN INDUSTRIAL AND  
TECHNOLOGY EDUCATION**

**APRIL, 2023**

## **DECLARATION**

I, IDRIS Hafiz (2016/1/63726TI) an undergraduate student in the Department of Industrial and Technology Education, declare that the project presented here is entirely original and has not been previously submitted, in part or in full, for any diploma or degree program at this or any other university.

IDRIS, Hafiz  
2016/1/63726TI

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Signature & Date

## CERTIFICATION

The research project titled "Assessment of Safety Practices Among Automobile Drivers and Tricycle Riders in Minna Metropolis, Niger State," conducted by IDRIS Hafiz (2016/1/63726TI), adheres to the guidelines governing the conferral of a Bachelor of Technology (B.Tech) degree in Industrial and Technology Education from the Federal University of Technology, Minna. The study is acknowledged for its significant contribution to knowledge and its effective literary presentation. As such, it has been duly approved.

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Dr. R. Audu  
Project Supervisor

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Sign & Date

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Dr. T. M. Saba  
Head of Department

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Sign & Date

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Prof. Shehu I. Y.  
External Examiner

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Sign & Date

## **DEDICATION**

I would like to dedicate this work to Allah (S.W.T), who is the source of life, the fountain of knowledge, and my unwavering help and refuge. I am deeply grateful for the support of my immediate family, whose invaluable assistance throughout this endeavour cannot be expressed in words. Finally, to my colleagues whose collaboration and support have made this work possible.

## ACKNOWLEDGEMENTS

The researcher would like to express my sincerest gratitude to Allah (SWT), the Most Merciful, the Most Compassionate, for granting me the opportunity, guidance, and strength to complete this research project. The researcher is deeply grateful for His endless blessings and mercy that have enabled me to overcome the obstacles that the researcher faced throughout this journey. Without His divine support, this accomplishment would not have been possible.

Secondly, the researcher would like to extend his heartfelt appreciation to his supervisor, Dr. R. Audu for his constant support, guidance, and constructive criticism throughout this project. Their insightful comments and feedback were invaluable in shaping his ideas and methodology, and the researcher is truly grateful for their dedication and patience.

The researcher also to acknowledges the contributions of my colleagues, most notable Mr. Lucky O. Haruna, who has provided me with valuable insights, ideas, and encouragement throughout this journey. Their support and assistance have been instrumental in shaping the final outcome of this project.

To the researcher's family, who has been a constant source of love and support, he cannot thank you enough for your unwavering encouragement and belief in him. Your understanding and patience during his long hours of research are greatly appreciated. You have been his motivation and my inspiration throughout this journey, and he is forever grateful for your unwavering support.

Last but not least, the researcher would like to express his sincere gratitude to his friends, for their unwavering support, encouragement, and motivation. Your presence in his life has been invaluable, and the researcher cannot thank you enough for being there for me during the ups and downs of this journey.

In conclusion, the researcher would like to express my deepest appreciation to all those who have supported him in this endeavour. May Allah (SWT) reward each and every one of you abundantly and bless you with success in all your endeavours.

## **ABSTRACT**

This project research looks into the safety practices that automobile drivers and tricycle riders in Minna Metropolis, Niger State employ daily in the prevention of accidents. Furthermore, the research recommends strategies for improving safety practices amongst automobile drivers and tricycle riders in Minna Metropolis, Niger State. It also investigates what the drivers and riders think is effective in curbing and preventing accidents. A descriptive research design survey was adopted for the study with major purpose of assessing the safety practices used by the drivers and riders in Minna Metropolis, Niger State. This study aimed to gather information and data on traffic safety practices among automobile drivers and tricycle riders in Minna Metropolis, Niger State, and make recommendations for improving safety practices. A descriptive survey design was used to collect data from one hundred (100) respondents selected through simple random sampling, comprising fifty (50) automobile drivers and fifty (50) tricycle riders. A structured questionnaire with 52 items was used to gather data, which were analysed using mean values to determine the views of respondents on safety practices and recommendations for improvement. The study found that respondents employed safety measures such as obeying traffic rules and maintaining their vehicles, but also identified areas for improvement, such as reducing speeding and avoiding distractions while driving. Recommendations for improving safety practices included increasing enforcement of traffic rules, providing education and awareness campaigns, and improving road infrastructure. These findings have important implications for policy makers and stakeholders seeking to promote safe driving and reduce the risk of accidents in Minna Metropolis, Niger State.

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## CHAPTER ONE

### 1.0

### INTRODUCTION

#### 1.1 Background of the Study

Human activity cannot exist without transportation, which is the foundation for all socioeconomic transactions. In addition, without a practical mode of travel, it will be difficult to connect with different locations in an efficient manner. The most popular form of transportation in Nigeria today is by road. Road traffic contributes to more than 90% of the micro economy's GDP, which is dependent on the pattern of human settlements (National Bureau of Statistics, Federal Road Safety Corps, 2016). The Nigerian economy is heavily dependent on the transportation industry, which has a catalytic impact on socio-economic development in particular. In Nigeria, road transportation is the predominant means of transportation, with a vast road network linking cities and facilitating the transportation of people, goods, and services in abundance. (Boboye Oyeyemi, 2017).

Like the majority of other emerging nations, Nigeria has a sizable, intricate road system. Only when all road users cooperate with one another and show consideration will this network be used safely and effectively. Around the world, car accidents happen frequently. Some of them are due to natural causes and some, however, are caused by the inability of road users to take their safety into consideration.

Safety is the state of being “safe”, the condition of being protected from harm or other danger. Safety can also refer to the control of recognized hazards to achieve an acceptable level of risk. Road safety is very important as the risks within the road can be higher depending on the road users. Wikipedia.com defines road safety refers to methods and measures used to prevent road users from being killed or seriously injured. Road safety refers to the methods and measures used to prevent road users from being killed or seriously injured from road traffic collisions or crashes.

(Boboye Oyeyemi, 2017). According to him, road safety is everyone's responsibility. It is essential to be aware of the dangers on the road and to take precautions to protect yourself and others. One of the biggest dangers on the street is careless or aggressive driving. Every year, thousands of people are killed or injured in car accidents caused by drivers who are speeding, distracted, or under the influence of drugs or alcohol.

The first and most crucial secret to super driving, according to Kurt Gray (2016) is to put safety first. Avoiding aggressive and careless driving characteristics will put you in a stronger position to handle other people's terrible driving. Some motorists drive aggressively. Others drift into another lane as a result of being inattentive. Drivers may dart in and out of traffic, follow too closely, or make unexpected changes without signalling.

Vehicle riders and tricycle riders are vulnerable road users as they are exposed to a variety of risks, including being hit by a car, tricycle, or pedestrian. To assess the safety of these groups, several factors must be considered. These include the number of accidents involving each group, the severity of the accidents, the number of injuries and fatalities, and the number of people exposed to the risk of being involved in an accident. In many countries, traffic safety is a pressing concern; assessing safety practices against road users is critical to keeping roads safe.

Many nations create organisations that are in charge of maintaining traffic safety. The Federal Road Safety Corps (FRSC), established in 1988, is the premier organisation in Nigeria for managing safety policies and programs. It is present in all 36 states of the country and is charged with preventing or reducing traffic accidents as one of its essential duties. The Federal Road Safety Corps (FRSC) is a Nigerian agency responsible for promoting road safety and reducing the number of accidents on the country's roads. Established in 1988, the FRSC is charged with the enforcement of traffic laws, the education of road users on safe driving practices, and the provision of emergency services in the event of accidents. The FRSC operates nationwide and is

responsible for the licensing and registration of vehicles, as well as the issuing of drivers' licences.

The Vehicle Inspection Office (VIO) is another Nigerian agency responsible for road safety. The VIO is responsible for the inspection of vehicles to ensure that they meet safety standards and are fit for use on the road. This includes conducting regular inspections of vehicles to check for any defects or issues that could impact safety, as well as issuing certificates of roadworthiness for vehicles that pass the inspection. The VIO works closely with the FRSC and other regulatory agencies to ensure that vehicles on the road are safe and compliant with relevant regulations. Both the FRSC and the VIO play important roles in promoting road safety in Nigeria and helping to reduce the number of accidents on the country's roads.

Unfortunate incidents may happen on the road which may lead to accidents. Depending on the nature and severity of the accident, it can cause road rage, traffic jams, damage to properties, and serious injuries or death. The World Health Organization (2015) made a note of road traffic injuries as the biggest cause of death within the age group of 15-29 as over 1.2 million people die each year on the world's roads, with millions more sustaining serious injuries and living with long-term adverse health consequences. The WHO (2015) has also mentioned that road traffic crashes are a leading cause of death among young people.

Road traffic injuries are currently estimated to be the ninth leading cause of death across all age groups globally and are predicted to become the seventh leading cause of death by 2030. In a more recent report by the WHO (2021), they've estimated that 1.3 million people worldwide die in traffic accidents and that 20 to 50 million additional people get non-fatal injuries, many of which result in permanent disabilities. These tragic figures are particularly prevalent in developing nations like Nigeria, and intercity travel over the holidays causes a disproportionately high number of accidents.

## **1.2 Statement of the Problem**

A statistical report by the NBS, FRSC (2016) shows that 19,764 people in Nigeria were involved in road traffic accidents in the third quarter of 2021. The report also specified that there were 10,259 involved casualties, where 8,827 people were injured and 1,432 people died as a result of road traffic crashes. The total number of road traffic crashes recorded by the NBS is 3,134 with causative factors such as dangerous driving, sleeping on steering, dangerous overtaking, use of a phone while driving, and driving under the influence of alcohol or drugs. The violation of the speed limit caused sixty-eight per cent of the crashes.

The report states that disaggregating crashes into categories shows that severe cases of road crashes in Q3 2021 were higher with 2,008 compared to fatal and minor cases with 723 and 403 respectively. Similarly, serious cases stood at 2,199 in Q4 2021 compared to fatal with 888 and minors at 320. A significant percentage of those incidents happened when narrowed down to the North Central region. The report states that North Central records a total of 1,349 total traffic crashes in Q3 2021. A whopping thirty-eight per cent of incidents have happened in this region within this time frame. Subsequently, the number of people who have been involved in road traffic accidents is in greater numbers.

This research seeks to determine what road users prioritise for their safety in the hopes of reducing or mitigating road traffic incidents. To understand the users and their driving culture before and while driving, preparation for safety starts by checking the essentials even before hopping into a vehicle. Do all drivers still maintain proper vehicle maintenance culture? Do drivers ignore a vehicle's working condition before heading into the road? Do drivers respect the traffic rules and regulations that have been laid out by the body that governs road safety in the country? These are all questions that may mitigate road traffic incidents as a prerequisite for using the road.

### **1.3 Objective of the Study**

The main objective of this study is to ascertain whether automobile drivers and tricycle riders exercise the means to prevent incidents that could occur on the road. The study aims to determine the following objectives:

1. To identify the safety practices employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State.
2. To assess the effectiveness of these safety practices in preventing accidents.
3. To make recommendations for improving safety practices among automobile drivers and tricycle riders in Minna Metropolis, Niger State.

### **1.4 Significance of the Study**

By understanding the current practices of drivers and the associated risks, policymakers and other stakeholders can develop strategies to reduce the number of road accidents. Additionally, this research could also provide insights into how to encourage and promote safer practices amongst drivers, which could ultimately lead to fewer casualties and improved road safety. The study is critical because it can help identify potential risks and provide insights into improving safety practices amongst road users.

Understanding the safety practices of drivers and the associated risks can help policymakers and other stakeholders develop strategies to reduce the number of road accidents. This research can provide valuable insights into the factors that contribute to road accidents and identify potential areas for improvement in terms of driver safety. By understanding the current practices of drivers and the risks they pose, it may be possible to develop interventions or programs that encourage and promote safer driving behaviours, ultimately leading to fewer casualties and improved road safety. Additionally, this research can help identify specific safety practices that may be effective in reducing the risk of accidents, which can inform policy decisions and the development of



educational programs aimed at improving road safety. Overall, the study of driver safety practices and the associated risks is critical for addressing the issue of road accidents and improving road safety in general.

### **1.5 Scope of the Study**

The study will be delimited to the collection of data surveys to gather information directly from automobile drivers and tri-cycle riders about their safety practices and any challenges they may face in following safe driving practices in Minna Metropolis, Niger State.

### **1.6 Research Questions**

The following research questions were used to guide the study:

1. What safety practices are employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State?
2. How effective are these safety practices in preventing accidents among automobile drivers and tricycle riders in Minna Metropolis, Niger State?
3. What recommendations can be made for improving safety practices among automobile drivers and tricycle riders in Minna Metropolis, Niger State?

### **1.7 Hypotheses**

The following null hypotheses were formulated:

- H<sub>01</sub>:** There is no significant difference between the mean responses of the safety practices employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State.
- H<sub>02</sub>:** There is no significant difference between the mean responses of automobile drivers and tricycle riders in Minna Metropolis, Niger State on the ways safety practices can be improved.

## CHAPTER TWO

### 2.0 REVIEW OF RELATED LITERATURE

The literature review for this study is organised under the following sub-headings:

- The prevalence of unsafe driving practices amongst road users.
- Environmental-related factors of road traffic accidents.
- The impact of unsafe driving practices on the road.
- The impact of road traffic incidents on society.
- Road safety and human behaviour.
- Vehicle design and infrastructure on road safety.
- Overview of road traffic crashes in Nigeria.
- Road traffic data in Nigeria.
- Road traffic data in Minna metropolis, Niger state.
- Summary of the literature reviewed.

#### 2.1 The prevalence of unsafe driving practices amongst road users.

A lot of people spend a lot of time on the road nowadays as they are constantly moving from one location to another. Road users overlook an essential aspect of driving which is their behaviours on the road. According to Jeremy (2022), the majority of car accidents are caused by unsafe driving practices. Since we engage in driving so frequently, it might be simple to fall into complacency. To lessen the likelihood of a collision, driving carefully and adhering to safety practices, it is crucial to drive carefully and adhere to safety practices.

Unsafe driving practices, according to Jeremy (2022) include the following:

1. Distracted driving: He mentions that distracted driving is a serious problem on the roadway nowadays. The use of cell phones when driving is also a common unsafe behaviour that distracts a lot of drivers. Sometimes conversations carried out in the

vehicle can also be distracting to the driver. Other activities carried out include, eating or drinking, interacting with passengers, and looking at surroundings as well can all lead to distractions. Jeremy added that it is important for the driver or rider to focus their attention on the road and what is happening around the vehicle when driving to avoid distractions which can lead to accidents. There are national mobile phone laws in 150 countries, and 145 of them forbid using hand-held phones while driving. Among these countries, the regulatory commission charged with enforcing the law in Nigeria is FRSC, they are charged with holding drivers responsible for the use of phones inside the vehicle. Young and inexperienced drivers frequently use their mobile devices behind the wheel, and cyclists are increasingly doing so as well. This increases the already high risk of collision and fatality among these groups. According to WHO (2018), driver reaction times have also been shown to be 50% slower when using a phone than when not.

2. Speeding and overspeeding: Driving at speeds that are higher than the posted speed limit or that is inappropriate for the road conditions is considered speeding. Wikitionary.com defines overspeeding as travelling at an excessive speed. Jeremy (2022) states that speeding is a contributing factor to accidents that happen every single day, it may also lead to severe auto accidents because of the increased forces experienced at the time of impact.
3. Road Rage: Dictionary.com defines road rage as, “a fit of violent anger by the driver of an automobile, especially one directed toward and endangering other motorists or pedestrians”. According to Jeremy, Road rage is a form of aggressive or violent behaviour exhibited by drivers in response to perceived injustices on the road, such as another driver cutting them off or driving too slowly. It can manifest as verbal or physical altercations and can lead to dangerous or even deadly confrontations. He added that these actions

could involve swerving in front of another driver, stopping suddenly, impeding the passage of other cars, or even intentionally colliding with another vehicle.

4. Ignoring traffic signals and signs: Roadway markings like traffic signals and signs are there for a reason. Traffic signs and traffic signals both work to safely convey important information to drivers and other road users. A serious accident may result from ignoring a traffic signal, such as a red light or stop sign. Accidents can also result from disregarding traffic regulations. Drivers are frequently given safety advice by signs, and accidents can happen if they ignore the warnings or instructions given.
5. Driving too fast for conditions: common environmental conditions require road users to slow down. The conditions that are common in Nigeria are rain, sun glare, and fog. Speeding in these conditions can be very dangerous and according to Jeremy, drivers should adjust their driving speed based on the conditions that are present. When possible, travelling should be scheduled around weather conditions that are favourable for driving.
6. Not wearing a seatbelt: Seatbelts help save lives, Jeremy argues that seatbelts are thought to save more than 14,000 lives annually. Some of the early vehicles had these safety features installed. Many people still opt not to wear seatbelts in spite of the laws demanding their use and the well-established fact that seatbelts save lives. This course of action is potentially fatal. He also added that road users are to wear their seatbelt every time they're in the vehicle and they should ensure it is worn correctly and is functioning as expected.
7. Driving under the influence: This is the most unsafe driving behaviour a person can partake in, Jeremy adds that in the United States, the annual cost of alcohol-related crashes is more than \$44 billion. In Nigeria, the NBS, FRSC (2022) reports that 11 crashes were caused by driving under alcohol/drug influence in the fourth quarter of 2021.

8. **Fatigued driving:** Driving while exhausted is potentially just as risky as driving while intoxicated. Fatigue can lead to reduced reaction times, and poor decision-making can all be symptoms of fatigue. Any of these occurrences has the potential to cause an accident that would not have happened if the driver had not been fatigued. He adds that road users should never drive while fatigued, in Nigeria a total of 12 road traffic crashes were found to have been caused by fatigued driving (NBS & FRSC, 2022).

In Nigeria, virtually all of these causes are prevalent; among other causes are wrongful overtaking, dangerous driving, route violation, mechanically deficient vehicle and overloading (Statista Research Department, 2022). Unprecedented incidents occur that may lead to accidents, we should note that the causes of these accidents are diverse; the safety of the road user may fundamentally depend on the user however the causes of road traffic accidents are multifactorial. Edward Eziokwu Egede (2014) highlights three factors which are major causes of road accidents: Human related factors, Vehicle-related factors, and Environment-related factors.

All of the contributing factors to traffic accidents involving drivers and other road users are related to drivers. This could affect the driver's driving habits, hearing and vision, capacity for making decisions, and reaction time. Road traffic accidents, injuries, and fatalities are also caused by drug and alcohol use while driving. Speeding, which is going faster than the speed limit or faster than what is appropriate for road conditions, is another factor that causes traffic accidents. Speed causes the risk of injury to rise exponentially much more quickly than the average speed.

Edward explains that vehicle factors can be divided into vehicle design, and vehicle maintenance (which to an extent depends on the driver and his ability to maintain his vehicle). Some safety features of vehicles like seatbelts and airbags are likely to reduce the risk of death and serious injuries. In addition, a well-designed and maintained vehicle is less likely to be involved in accidents. If the brakes and tires are good and the suspension well-adjusted, the vehicle is more

controllable in an emergency and thus, better equipped to avoid accidents. NBS, FRSC (2022) reports that a total of 115 road traffic crashes were caused by mechanically deficient vehicles in the fourth quarter of 2021. Additionally, 153 cases were caused by brake failure. In Nigeria, many drivers fail to periodically maintain their vehicles from servicing the vehicle to changing brake pads which can cause brake failure. Some drivers will only take action when the condition of the vehicle has become unusable.

## **2.2 Environmental-related factors of road traffic accidents.**

A study conducted by Jalilian, Safarpour, Bazayr, Keykaleh, Malekyan, and Khorshidi (2019) in Iran concluded that environmental risk factors are one of the most affecting factors of road traffic accidents. They argued that road traffic accidents are prone to occur when the road has environmental impairment. According to their research, road traffic accidents occurred 2.31 more times in the evening than it was during the daytime, and 2.60 times more on a cloudy day than on a clear day. Environmental factors are not only limited to the condition of the weather, but also the condition of the road. NBS, FRSC (2022) states that 50 road traffic cases were caused by bad roads in Nigeria in the last quarter of 2022.

Environmental factors that can contribute to road accidents include weather conditions such as rain, snow, and ice, which can make roads slippery and reduce visibility. Poor road design or maintenance, such as potholes or lack of guardrails, can also contribute to accidents. In addition, lighting conditions, such as darkness or glare, can make it difficult for drivers to see the road and other vehicles. Other environmental factors that can contribute to accidents include construction or debris on the road, and wildlife or other obstacles that may be present on or near the roadway (WHO, 2018).

### **2.3 The impact of unsafe driving practices on the road.**

Unsafe or illegal driving practices can negatively affect the flow of traffic and even cause accidents directly or indirectly. This is due to the driver's lack of safety knowledge and unsafe habits, which can create hidden dangers for road safety. (Hu, Xue, Wang, Chen, Zhang, & Qin, 2017). According to them, when drivers engage in these behaviours, it can have a significant impact on the flow of traffic on the road. One way in which unsafe driving can impact traffic flow is by causing congestion and delays. For example, if a driver is speeding and tailgating, it can make it difficult for other drivers to maintain a steady speed and distance from the vehicle in front of them, leading to a slowdown in traffic. Similarly, if a driver runs a red light, it can cause other drivers to come to a sudden stop, leading to a backup of traffic.

Edward (2014) notes that unsafe driving practices can also lead to accidents directly or indirectly. If a driver is under the influence of drugs or alcohol, they may be more likely to make poor decisions, such as running a red light or weaving in and out of traffic, this can lead to a collision with another vehicle or a pedestrian, causing injury or death. Even if a driver is not directly involved in an accident, their unsafe actions can still contribute to an accident indirectly. He added that if a driver is tailgating, they may be more likely to rear-end another vehicle if the vehicle in front of them suddenly brakes.

Furthermore, Hu et al (2017) argue that unsafe driving practices can create hidden troubles to road traffic safety because it is often a result of drivers' lack of safety knowledge and unsafe driving habits. A driver may not know that it is illegal to drive under the influence of drugs or alcohol, or they may not know the proper way to merge onto a highway. This lack of knowledge can lead to dangerous behaviours on the road. Additionally, some people may have developed bad driving habits over time, such as not signalling when changing lanes or not keeping an

adequate distance from the vehicle in front of them. These habits can be difficult to break and can lead to unsafe driving practices which in turn increases the chances of accidents happening.

Unsafe or illegal driving practices can have a negative impact on the flow of traffic and can lead to accidents directly or indirectly. These behaviours are often a result of drivers' lack of safety knowledge and unsafe driving habits, which can create hidden dangers for road safety.

#### **2.4 The impact of road traffic incidents on society.**

Over the past three decades, a very large number of high-income nations have been quantifying the costs of traffic accidents. Because it is difficult to put a monetary value on pain and suffering, there has been much discussion and controversy about the methods utilized and the costs assigned (Mohan, Tiwari, Varghese, Bhalla, John, Saran, & White, 2020). According to Mohan et al, the effect of road traffic crashes on victims include physical and mental impairment caused by road traffic injury, it can have long-term effects on the victim and may deny victims the ability to maintain their standard of living.

Many family members of deceased and disabled victims, as well as the disabled individuals themselves, experience psychological disorders. The most severe cases are typically seen in the relatives of those who have died. Some of the victims begin consuming psychotropic products such as tranquillizers, sleeping tablets and tobacco after road traffic incidents.

Mohan et al added that the relationship of the victim with their normal social partners deteriorates due to the accident that may have caused them impairment. They also argued that the economic cost of the tragedies caused by road traffic accidents is inefficient to understand the financial cost in society.

#### **2.5 Road safety and human behaviour.**

At a global level, up to 95% of road crashes are attributable to human behaviour (Moyana & Chibira 2016). According to Moyana & Chibira, 83% of those who break road and traffic rules



are aware of the rules but still go about breaking them. A driver is mandated to wear seatbelts while in the car, obey the speed limits that have been placed, follow traffic signs and signals, signal his intentions, and overtake the proper way. They added that there are many elements that constitute problematic human behaviour in traffic and they include driving under the influence of alcohol and narcotic drugs, using phones whilst driving, attempting to reach objects in the car whilst driving, over-speeding, jumping or skipping red lights, lane invasion, not wearing seatbelts, not using children restraint, driving beyond recommended driving times, driving whilst fatigued, using undesignated roads, overloading their vehicle, and leaving vehicles unroadworthy. All these constitute behaviours carried out by people even when they know that it is against the rules.

Even though people take in information and interpret it, they do so in the context of a variety of factors, including prior experience, emotions, cultural norms, moral convictions, social pressures, practicality, habits, and financial considerations, among many others. Even when rational calculations based on factual data are possible, they must frequently contend with these other factors. Because of this, people frequently take actions that are not necessarily best for their health and well-being (Federal Highway Administration, 2017). A driver in a hurry is bound to break the rules because he has something he needs to get to, leaving out his safety and doing all he can to get to where he needs to be. Nonetheless, it is a choice for a driver to still take safety as a priority even when he is in a hurry to move from one location to another.

The European Automobile Manufacturers Association (2019) stated that human error contributes to 90% of all road accidents that happen today. They went on to state that if the general behaviour of road users improved while on the road, it would be the biggest potential for improving road safety. Furthermore, road users can be taught appropriate behaviour and attitudes by receiving education and training.

## **2.6 Vehicle design and infrastructure on road safety.**

The safety of drivers, passengers, and pedestrians is impacted by vehicle design. The severity of injuries in the event of a collision can be lessened by vehicle design features like airbags, seatbelts, crumple zones, and anti-lock brakes, according to the European Automobile Manufacturers Association (2019). In addition, collision risk can be decreased by vehicle design elements like lane departure warning systems and blind spot monitoring systems.

In terms of safety procedures, infrastructure is also crucial. Roadways should be designed with safety in mind to lower the collisions risk. This includes elements that divide opposing traffic lanes, such as guardrails, rumble strips, and median barriers. Additionally, adequate lighting should be included in the design of the roads to enhance visibility at night and in bad weather, and traffic signals ought to be put in place at intersections to help control traffic and lower the chance of collisions.

Finally, the European Automobile Manufacturers Association expresses that it is possible to promote safe driving practices through infrastructure as well as vehicle design. While road markings can be used to show when it is safe for drivers to turn or change lanes, speed limit signs can serve as a reminder to follow posted limits. Signage can also be used to remind motorists of other crucial safety precautions, like always wearing seatbelts and abstaining from using cell phones while driving.

## **2.7 Overview of road traffic crashes in Nigeria.**

In Nigeria, traffic accidents are a significant public health issue. Road traffic accidents are the leading cause of death in Nigeria for people between the ages of 15 and 29 according to the WHO (2018). According to estimates, 14,000 people in Nigeria died in road traffic accidents in 2018, amounting to a mortality rate of 24.2 per 100,000 people. In Nigeria, motorised two-wheelers and automobiles are involved in the majority of traffic collisions that happen on urban

roads. The most frequent causes of these collisions are speeding, intoxicated driving, and the absence of safety equipment like seat belts and helmets. Poor road infrastructure, insufficient traffic law enforcement, and a lack of driver education are additional contributing factors.

Boboye Oyeyemi (2017) notes that traffic safety is also a challenge in Nigeria too, further adding that 350,961 people have been killed on Nigerian roads from 1960 to 2016. While 1,208,890 people have been injured during that time. He highlights the challenges to road safety in Nigeria and they include:

1. **Cultural Conflict:** In some parts of the country, certain cultures do not align with basic road safety rules. According to Boboye (2017), this can result in a lack of comprehension and acceptance of these laws, which can make people in these cultures resistant even when the possible repercussions are made plain. This may be caused by a number of things, like a lack of knowledge about traffic safety or the conviction that their cultural norms should take precedence over any rules or laws.
2. **Ineffective traffic laws implementation:** The inadequate enforcement of traffic regulations by the states and local government areas is a major issue that needs to be addressed. This is because when traffic laws are not enforced, it can lead to dangerous driving behaviours, such as speeding, running red lights, and other reckless driving. Furthermore, when states have different traffic laws that are not aligned with one another, it can create confusion for drivers who may be travelling between states. This can lead to further dangerous driving behaviours as drivers may not be aware of the different laws in each state. According to Boboye, to address this issue, states should form their own traffic agencies to supplement the efforts of the Federal Road Safety Commission (FRSC). This would help reduce the burden on federal agencies like the FRSC and ensure that all states have adequate enforcement of their traffic regulations. Additionally, having state-level agencies

would allow for more tailored enforcement strategies that are better suited to each state's unique needs.

3. **The state of road infrastructures:** The state of road infrastructure in Nigeria is poor and a major challenge to road safety. The majority of roads are in a state of disrepair, with potholes, cracks, and other damage. Many roads are also poorly maintained and lack basic safety features such as guardrails and streetlights. Additionally, the country's road network is inadequate for its population size, leading to traffic congestion and long travel times.
4. **Ineffective Vehicle Inspection System:** the automobile inspection system in Nigeria is mainly inefficient as a result of a lack of funding, poor infrastructure, and corruption. He argues that the Nigerian government has undertaken a variety of reform-related measures, however, these have generally failed. The majority of vehicles on the road do not get routine inspections, and those that do frequently do not fulfil safety requirements. Furthermore, there is a lack of enforcement of the laws now in place, which results in dangerous automobiles on the roads. Last but not least, systemic corruption has caused bribes to be taken in exchange for passing inspections.
5. **Mindset and Poverty:** Another major challenge according to Boboye that Nigeria is facing which affects road safety today is the lack of proper mindset of those who engage in the public transportation business. He adds that the rush to make more money at the danger of others is a concern. These drivers do not concern themselves with road safety and are known to engage in overloading and speeding.
6. **The use of highways as a marketplace:** The use of major roads for trade can raise a number of safety and security issues. Because there is less room for vehicles to manoeuvre due to the narrowing of the road, there may be more traffic congestion and

accidents as a result. Furthermore, the presence of vendors by the side of the road can distract drivers, increasing the risk to their safety. Additionally, there is a possibility that traders are more likely to engage in criminal activity, such as selling fake goods, which puts both drivers and pedestrians at risk.

He came to the conclusion that global standards for road safety apply equally in Nigeria. The main obstacle is having the mindset and motivation to implement measures that will increase the safety of all road users. Government efforts and interventions won't be effective until road safety is viewed as a shared responsibility and a personal commitment.

## 2.8 Road traffic data in Nigeria.

In Nigeria, road traffic data is critical for ensuring efficient transportation and reducing traffic congestion in major cities. With a growing population and urbanization, traffic congestion has become a significant problem in Nigeria, causing delays, economic losses, and environmental pollution. Therefore, road traffic data collection and analysis have become more important than ever in Nigeria. It helps traffic authorities make informed decisions on traffic management and urban planning. (Boboye, 2017)

In Nigeria, road traffic has also increased significantly over the past few decades, particularly in major cities like Lagos, Abuja, and Port Harcourt. According to Richard Paul (2021), the number of registered vehicles in Nigeria has increased from about 500,000 in 1980 to over 11 million in 2018. This growth in road traffic has resulted in increased traffic congestion, longer travel times, and higher accident rates.

**Table 2.1: Trends of Road Traffic Crashes in Nigeria from 1960 to 2017**

Year	Total cases	Change	Killed	Change	Injured	Change	Total Casualty	Change
1960	14130	0%	1083	0%	10216	0%	11299	0%
1961	15963	13%	1313	21%	10614	4%	11927	6%
1962	16317	2%	1578	20%	10341	-3%	11919	0%
1963	19835	22%	1532	-3%	7771	-25%	9303	-22%
1964	15927	-20%	1769	15%	12581	62%	14350	54%
1965	16904	6%	1918	8%	12024	-4%	13942	-3%

1966	14000	-17%	2000	4%	13000	8%	15000	8%
1967	13000	-7%	2400	20%	10000	-23%	12400	-17%
1968	12163	-6%	2808	17%	9474	-5%	12282	-1%
1969	12998	7%	2347	-16%	8804	-7%	11151	-9%
1970	16666	28%	2893	23%	13154	49%	16047	44%
1971	17745	6%	3206	11%	14592	11%	17798	11%
1972	23187	31%	3921	22%	16161	11%	20082	13%
1973	24844	7%	4537	16%	18154	12%	22691	13%
1974	28893	16%	4992	10%	18660	3%	23652	4%
1975	23651	-18%	5552	11%	20132	8%	25684	9%
1976	40881	73%	6761	22%	28155	40%	34916	36%
1977	35351	-14%	8000	18%	30023	7%	38023	9%
1978	36111	2%	9252	16%	28854	-4%	38106	0%
1979	29271	-19%	8022	-13%	21203	-27%	29225	-23%
1980	32138	10%	8736	9%	25484	20%	34220	17%
1981	33777	5%	10202	17%	26337	3%	36539	7%
1982	37094	10%	11382	12%	28539	8%	39921	9%
1983	32109	-13%	10462	-8%	26866	-6%	37328	-6%
1984	28892	-10%	8830	-16%	23861	-11%	32691	-12%
1985	29978	4%	9221	4%	23853	0%	33074	1%
1986	25188	-16%	8154	-12%	22176	-7%	30330	-8%
1987	28215	12%	7912	-3%	22747	3%	30659	1%
1988	25792	-9%	9077	15%	24413	7%	33490	9%
1989	23987	-7%	8714	-4%	23687	-3%	32401	-3%
1990	21934	-9%	8154	-6%	22786	-4%	30940	-5%
1991	22546	3%	9525	17%	24508	8%	34033	10%
1992	22864	1%	9620	1%	25759	5%	35379	4%
1993	21459	-6%	9454	-2%	24146	-6%	33600	-5%
1994	18204	-15%	7440	-21%	17938	-26%	25378	-24%
1995	17030	-6%	6647	-11%	14561	-19%	21208	-16%
1996	16442	-3%	6364	-4%	15290	5%	21654	2%
1997	17488	6%	6500	2%	10786	-29%	17286	-20%
1998	16138	-8%	6538	1%	17341	61%	23879	38%
1999	15865	-2%	6795	4%	17728	2%	24523	3%
2000	16606	5%	8473	25%	20677	17%	29150	19%
2001	20530	24%	9946	17%	23249	12%	33195	14%
2002	14544	-29%	7407	-26%	22112	-5%	29519	-11%
2003	14364	-1%	6452	-13%	18116	-18%	24568	-17%
2004	14274	-1%	5351	-17%	16897	-7%	22248	-9%
2005	9062	-37%	4519	-16%	15779	-7%	20298	-9%
2006	9114	1%	4944	9%	17390	10%	22334	10%
2007	8477	-7%	4673	-5%	17794	2%	22467	1%
2008	11341	34%	6661	43%	27980	57%	34641	54%
2009	10854	-4%	5693	-15%	27270	-3%	32963	-5%
2010	11385	5%	6052	6%	35691	31%	41743	27%
2011	13196	16%	6054	0%	41165	15%	47219	13%
2012	13262	1%	6092	1%	39348	-4%	45440	-4%
2013	13583	2%	6544	7%	40057	2%	46601	3%
2014	10380	-24%	5996	-8%	32063	-20%	38059	-18%
2015	9734	-6%	5440	-9%	30478	-5%	35918	-6%
2016	9694	0%	5053	-7%	30105	-1%	35158	-2%
2017	9383	-3%	5121	1%	31094	3%	36215	3%
<b>Total</b>	<b>1134760</b>		<b>356082</b>		<b>1239984</b>		<b>1596066</b>	

The above represents data on road crashes collated by Olagunju (2018) which was computed by FRSC records. It shows data on road crashes from the year 1960 to 2017. While the number of cases diminished, a staggering number of people have been affected over the course of time.

## **2.9 Road traffic data in Minna Metropolis, Niger State.**

For a better understanding of the state's transportation system, road traffic data in Niger State is a crucial source of information. It can give information about the volume and speed of traffic, the number of vehicles on the road, and the different kinds of vehicles. It can also be used to pinpoint locations where traffic congestion or road safety measures need to be improved. In Nigeria, the Federal Road Safety Commission (FRSC) is responsible for collecting and managing road traffic data. The FRSC was established by the federal government of Nigeria with the mandate to ensure the safety of road users and reduce the number of road accidents in the country. The FRSC carries out regular road safety campaigns, collects data on road traffic accidents, and implements policies aimed at reducing the number of road accidents in Nigeria.

Road traffic data refers to the collection of information related to the use of roads, including the number and type of vehicles using the roads, the speed at which they are travelling, the volume of traffic on specific roads, and the times at which roads are most heavily used (Biyi Fafunmi, 2014). This information can be used to analyse patterns of traffic flow and to identify areas where there are high levels of congestion or where accidents are likely to occur. The data can be used to inform decisions about the planning and management of road networks, including the placement of traffic signals, the design of intersections, and the construction of new roads and highways. Additionally, road traffic data can be used by governments and private organizations to monitor compliance with traffic laws, track changes in road usage over time, and measure the impact of road safety initiatives. According to Kayode (2015), data collection enables a person or

organization to answer relevant questions, evaluate outcomes and make predictions about future probabilities and trends.

The Nigeria Data Portal (2015) conducted a comprehensive statistical report in 2015 with the primary objective of collecting extensive road traffic data, with a keen emphasis on comprehending the fluctuations and recurring patterns in the reported road traffic incidents in Niger State. The study aimed to provide valuable insights into the road traffic situation in the region to aid in the development of effective strategies to mitigate road traffic incidents. The table below provides information regarding the number of cases reported.

**Table 2.2: Number of Road Accident Cases Reported**

Date	Value
2005	378
2006	270
2007	262
2008	341
2009	291
2010	330
2013	99
2014	467
2015	645

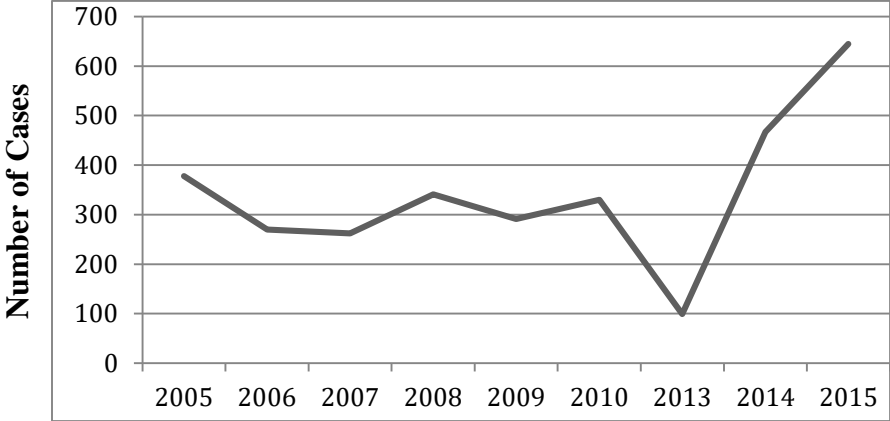


Figure 1: Number of Road Accident Cases Reported.  
Source: Nigeria Data Portal (2015)



The graph illustrates the growth in reported cases from 2013 to 2015. According to the NBS and FRSC's 2022 report, the number of road traffic accidents in Q3 2021 was 3,134, which was a decrease of 1.60% compared to Q2 2021 (3,185). However, in Q4 2021, there was an increase of 8.71% with 3,407 cases recorded. The data reveals that serious road crashes were more prevalent in Q3 2021, with 2,008 cases, as opposed to fatal crashes (723) and minor crashes (403). Similarly, in Q4 2021, serious cases were 2,199, while fatal cases were 888 and minor cases were 320. The following table provides an overview of road transport data in Niger State, collected by NBS and FRSC.

**Table 2.3: Road Traffic Data in Minna**

<b>QUARTER</b>	<b>Q4 2020</b>	<b>Q1 2021</b>	<b>Q2 2021</b>	<b>Q3 2021</b>	<b>Q4 2021</b>
<b>FATAL</b>	27	25	47	64	50
<b>SERIOUS</b>	80	82	98	151	129
<b>MINOR</b>	3	1	3	4	1
<b>TOTAL CASES</b>	<b>110</b>	<b>108</b>	<b>148</b>	<b>219</b>	<b>180</b>
<b>NUMBERS INJURED</b>	347	492	516	577	759
<b>NUMBERS KILLED</b>	91	93	103	150	108
<b>TOTAL CASUALTY</b>	438	585	619	727	867
<b>PEOPLE INVOLVED</b>	<b>653</b>	<b>809</b>	<b>946</b>	<b>1227</b>	<b>1377</b>

Source: NBS, FRSC (2022)

The table summarizes road traffic accidents in Niger State for the quarters Q4 2020 to Q4 2021. The data includes the number of fatal, serious, and minor cases, as well as the total number of cases, the number of people injured, the number of people killed, the total number of casualties, and the number of people involved. The data shows that the number of fatal cases has decreased from 64 in Q3 2021 to 50 in Q4 2021. Meanwhile, the number of serious cases increased from 98 in Q2 2021 to 151 in Q3 2021, and then decreased to 129 in Q4 2021. The total number of cases

has increased from 110 in Q4 2020 to 180 in Q4 2021. The number of people involved in road traffic accidents has also increased from 653 in Q4 2020 to 1377 in Q4 2021. This information implies the need for continued efforts to address the root causes of road traffic accidents and reduce their frequency and impact.

### **2.9.1 Summary of literature reviewed**

The review of literature for this study covers the different aspects of road traffic accidents, and the extent to which road users engage in practices that contribute to road traffic accidents was explained. It was noted that human factors were the major cause of road traffic accidents and if drivers look to adjust their behaviour on the road, a significant number of road traffic cases could be avoided. Furthermore, the impact of environmental factors on road traffic accidents, such as the weather, lighting and road conditions was noted. Environmental impairment causes accidents as driving under these conditions would be difficult. However, it was also noted that road users were better off making schedules to use the road when the condition of the environment wouldn't be a deterrent to the user.

A comprehensive overview of road traffic crashes in Nigeria and some of the general causative factors of road traffic accidents in Nigeria were highlighted. Afterwards, the study specifically focused on road traffic data in Minna metropolis, Niger state, providing analysis of road traffic accidents in the area. The safety of automobile drivers and tricycle riders is an important issue that needs to be addressed. With the growth of the automotive industry, the number of vehicles on the road has increased significantly, resulting in an increased risk of accidents. To ensure the safety of both drivers and riders, it is essential to ensure that proper safety protocols are in place.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

This chapter describes the Research Design, Area of the Study, Population, Sample and Sampling Technique, Instrument for Data Collection, Validation of the Instrument, Administration of the Instrument, Method of Data Analysis, and Decision Rule.

#### **3.1 Research Design**

A descriptive survey was used to conduct the study. The design was adopted as a means to gather information from automobile drivers and tricycle riders. The survey questioned them directly on safety measures carried out while on the road, and this will helped draw out a conclusive analysis of whether automobile drivers and tricycle riders obey the rules and regulations that should be followed while on the road.

#### **3.2 Area of the Study**

A study is to be conducted in Minna, Niger state. The purpose of the study is to gather information and data on traffic safety amongst automobile drivers and tricycle riders in order to understand it better and potentially find solutions or make recommendations. The study was conducted according to a specific research design and methodology which involved collecting data by conducting a descriptive survey design. The study results has been analysed and reported to draw conclusions and make recommendations based on the findings.

#### **3.3 Population of the Study**

The target population for this study is 100 respondents, comprising 50 automobile drivers and 50 tricycle riders, selected using a simple random sampling technique from a specific geographical area in Minna, Niger state.

### **3.4 Sample and Sampling Technique**

The participants were selected based on criteria such as age (minimum 25 years), gender (male and female), and driving experience (minimum of one year and six months). All eligible participants who meet these criteria will be included in the study.

### **3.5 Instrument for Data Collection**

The research instrument used in data gathering for the study is a structured questionnaire which is divided into two parts. Part One consists of the personal data of the respondents and instructions on how the questionnaire will be answered. Part Two consists of the questionnaire which will be divided into three sections (Section A, Section B and Section C). Section A contain twenty (20) items, Section B having twenty (20) items, and Section C holds twelve (12) items.

### **3.6 Validation of the Instrument**

The instrument was validated by lecturers in the department of Industrial and Technology Education, Federal University of Technology, Minna. Their suggestions were used to modify and produce the final copy of the instrument used for the data collection.

### **3.7 Administration of the Instrument**

The instrument for the data collection was administered to the respondents by the researcher and 2 of his assistants.

### **3.8 Method of Data Analysis**

The data collected for this study from the respondents was analysed using mean and standard deviation to answer and test the null hypothesis formulated for the study. A 5-point rating scale was used to analyse the data from each section as shown below:

Strongly Agree	(SA)	=	5 points
Agree	(A)	=	4 points
Undecided	(U)	=	3 points

Disagree (D) = 2 points

Strongly Disagree (SD) = 1 point

The mean value therefore =  $\frac{5+4+3+2+1}{5} = 3.00$

### **3.9 Decision Rule**

To determine the acceptance level, a mean of 3.00 was chosen, this is relatively interpreted to the 5-point rating scale used for this study. In the view of this, any item with a calculated mean of 3.00 and above was tagged as Agreed. Furthermore, any item with a mean response of 2.99 and below was accepted as Disagreed. Standard deviation value close or wide apart was used to determine the similarity in opinion among the respondents. In testing the hypotheses, an inferential statistics t-test was used to test the hypotheses at 0.05 level of significance to compare the mean response of the automobile drivers and tricycle riders.

## CHAPTER FOUR

### 4.0 RESULTS AND DISCUSSION

This chapter consists of summary of analysis and interpretation of result for the data collected through responses of automobile drivers and tricycle riders on the safety practices employed by them while on the road.

#### 4.1 Research Question 1

What safety practices are employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State?

**Table 4.1: Response of automobile drivers and tricycle riders on the safety practices employed in Minna Metropolis, Niger State.**

S/N	ITEMS	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_t$	REMARK
1	Wearing seat belts while driving or riding.	4.50	4.45	4.48	Agreed
2	Following traffic laws and signals.	4.21	3.85	4.03	Agreed
3	Keeping a safe distance from other vehicles.	4.36	4.62	4.49	Agreed
4	Avoiding distractions while driving or riding.	4.27	4.53	4.40	Agreed
5	Conducting regular maintenance checks on their vehicles.	3.11	4.15	3.63	Agreed
6	Avoiding drunk driving.	4.75	4.11	4.43	Agreed
7	Avoiding overloading of passengers or cargo.	4.17	4.21	4.19	Agreed
8	Conducting regular check-ups of brakes and tires.	4.28	3.86	4.07	Agreed
9	Avoiding aggressive or reckless driving.	4.10	4.62	4.36	Agreed
10	Keeping the vehicle in good working condition.	3.92	3.25	3.59	Agreed
11	Keeping the vehicle registration and insurance updated.	3.30	3.62	3.46	Agreed
12	Avoiding the use of mobile phones while driving or riding.	3.17	3.49	3.33	Agreed
13	Avoiding excessive speeding.	4.54	3.52	4.03	Agreed
14	Keeping the windshield and mirrors clean for clear visibility.	3.91	4.72	4.31	Agreed
15	Conducting regular check-ups of steering, suspension and brakes.	4.55	4.20	4.38	Agreed
16	Avoiding road rage and aggressive behaviour towards other drivers or riders.	3.83	3.19	3.51	Agreed
17	Checking weather conditions and adjusting driving behaviour accordingly.	4.13	3.22	3.67	Agreed
18	Avoiding sudden lane changes or merging.	4.31	4.34	4.32	Agreed
19	Conducting regular check-ups of battery, oil levels, and engine performance.	4.50	4.45	4.48	Agreed
20	Avoiding overtaking in dangerous areas or where	4.21	3.85	4.03	Agreed

it is prohibited.

$N_1 = 50$

$N_2 = 50$

**Key:**

$N_1$  = Number of automobile drivers,  $N_2$  = Number of tricycle riders.

$\bar{X}_1$  = Average mean of automobile drivers.

$\bar{X}_2$  = Average mean of tricycle riders.

$\bar{X}_t$  = Average mean of automobile riders and tricycle riders.

The analysis in Table 4.1 revealed that the respondents adjudged all twenty (20) items as the safety practices followed by automobile driver and tricycle riders with mean value ranging from 3.33 to 4.49.

#### 4.2 Research Question 2

How effective are these safety practices in preventing accidents among automobile drivers and tricycle riders in Minna Metropolis, Niger State?

**Table 4.2: Response of automobile drivers and tricycle riders on the effectiveness of the safety practices employed in Minna Metropolis, Niger State.**

S/N	ITEMS	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_t$	REMARK
1	Wearing seat belts while driving or riding.	4.83	3.80	4.31	Agreed
2	Following traffic laws and signals.	4.66	3.74	4.20	Agreed
3	Keeping a safe distance from other vehicles.	4.83	3.76	4.30	Agreed
4	Avoiding distractions while driving or riding.	4.50	3.76	4.16	Agreed
5	Conducting regular maintenance checks on their vehicles.	4.50	3.83	4.07	Agreed
6	Avoiding drunk driving.	4.00	4.11	4.05	Agreed
7	Avoiding overloading of passengers or cargo.	4.33	4.04	4.18	Agreed
8	Conducting regular check-ups of brakes and tires.	4.50	3.98	4.24	Agreed
9	Avoiding aggressive or reckless driving.	4.33	3.86	4.09	Agreed
10	Keeping the vehicle in good working condition.	4.50	3.92	4.21	Agreed
11	Keeping the vehicle registration and insurance updated.	4.33	4.11	4.22	Agreed
12	Avoiding the use of mobile phones while driving or riding.	4.50	4.04	4.27	Agreed
13	Avoiding excessive speeding.	4.00	4.02	4.01	Agreed
14	Keeping the windshield and mirrors clean for clear visibility.	4.16	4.00	4.08	Agreed
15	Conducting regular check-ups of steering,	3.50	3.74	3.62	Agreed

	suspension and brakes.				
16	Avoiding road rage and aggressive behaviour towards other drivers or riders.	4.00	3.81	3.90	Agreed
17	Checking weather conditions and adjusting driving behaviour accordingly.	3.33	4.18	3.25	Agreed
18	Avoiding sudden lane changes or merging.	4.66	4.20	4.43	Agreed
19	Conducting regular check-ups of battery, oil levels, and engine performance.	3.88	3.93	3.88	Agreed
20	Avoiding overtaking in dangerous areas or where it is prohibited.	4.16	4.09	4.12	Agreed
		$N_1 = 50$		$N_2 = 50$	

**Key:**

$N_1$  = Number of automobile drivers,  $N_2$  = Number of tricycle riders.

$\bar{X}_1$  = Average mean of automobile drivers.

$\bar{X}_2$  = Average mean of tricycle riders.

$\bar{X}_t$  = Average mean of automobile riders and tricycle riders.

The analysis in Table 4.2 revealed that the respondents adjudged all twenty (20) items as the safety practices which are effective to automobile driver and tricycle riders with mean value ranging from 3.25 to 4.43.

### 4.3 Research Question 3

What recommendations can be made for improving safety practices among automobile drivers and tricycle riders in Minna Metropolis, Niger State?

**Table 4.3: Response of automobile drivers and tricycle riders on the ways of improving safety practices in Minna Metropolis, Niger State.**

S/N	ITEMS	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_t$	REMARK
1	Provide drivers and riders safety training classes.	4.83	3.80	4.30	Agreed
2	Increase the number of traffic officers on the roads.	4.66	3.74	4.20	Agreed
3	Increase the number of road safety signs and markings on the road.	4.50	4.24	4.37	Agreed
4	Install speed limit signs and road bump on the roads.	4.00	3.88	3.94	Agreed
5	Make regular vehicle inspections mandatory.	3.65	4.60	4.13	Agreed
6	Provide speed limit reminders on the road.	4.55	4.31	4.43	Agreed
7	Provide helmets for drivers and riders.	2.55	2.30	2.43	Disagree
8	Strict implementation of laws and penalties for	4.75	4.50	4.63	Agree



	overspeeding and reckless driving.				
9	Develop a system for monitoring and enforcing traffic rules such as CCTV cameras on the road.	4.52	4.27	4.40	Agreed
10	Create designated parking areas for tricycles.	4.00	4.86	4.43	Agreed
11	Establish a network of emergency response teams for quick response to road accidents.	4.85	4.23	4.54	Agreed
12	Improving road channels to make sure they're safe for drivers and riders.	4.55	4.68	4.62	Agreed
				N <sub>1</sub> = 50	N <sub>2</sub> = 50

**Key:**

N<sub>1</sub>= Number of automobile drivers, N<sub>2</sub> = Number of tricycle riders.

$\bar{X}_1$  = Average mean of automobile drivers.

$\bar{X}_2$  = Average mean of tricycle riders.

$\bar{X}_t$  = Average mean of automobile riders and tricycle riders.

The analysis in Table 4.3 revealed that the respondents adjudged all twenty (20) items as the safety practices which are effective to automobile driver and tricycle riders with mean value ranging from 2.43 to 4.63.

#### 4.4 Hypothesis 1

There is no significant difference between the mean responses of the safety practices employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State.

**Table 4.4: *t*-test analysis of the mean response of automobile drivers and tricycle riders on the ways of improving safety practices in Minna Metropolis, Niger State.**

S/N	ITEMS	SD <sub>1</sub>	SD <sub>2</sub>	t-cal	REMARK
1	Wearing seat belts while driving or riding.	0.37	1.46	0.27	Not Significant
2	Following traffic laws and signals.	0.47	1.52	0.35	Not Significant
3	Keeping a safe distance from other vehicles.	0.37	1.66	0.38	Not Significant
4	Avoiding distractions while driving or riding.	0.50	1.56	-0.19	Not Significant
5	Conducting regular maintenance checks on their vehicles.	0.50	1.47	-0.23	Not Significant
6	Avoiding drunk driving.	0.58	1.47	0.11	Not Significant
7	Avoiding overloading of passengers or cargo.	1.23	1.27	-0.36	Not Significant
8	Conducting regular check-ups of brakes and tires.	1.12	0.95	0.42	Not Significant
9	Avoiding aggressive or reckless driving.	0.58	0.62	-0.87	Not Significant
10	Keeping the vehicle in good working condition.	1.44	0.50	0.22	Not Significant
11	Keeping the vehicle registration and insurance	1.52	0.56	1.64	Not Significant

	updated.				
12	Avoiding the use of mobile phones while driving or riding.	0.96	0.54	-1.37	Not Significant
13	Avoiding excessive speeding.	0.58	0.64	0.23	Not Significant
14	Keeping the windshield and mirrors clean for clear visibility.	1.12	0.75	-0.64	Not Significant
15	Conducting regular check-ups of steering, suspension and brakes.	0.58	0.84	0.06	Not Significant
16	Avoiding road rage and aggressive behaviour towards other drivers or riders.	0.58	0.88	1.67	Not Significant
17	Checking weather conditions and adjusting driving behaviour accordingly.	1.09	0.88	-1.27	Not Significant
18	Avoiding sudden lane changes or merging.	0.76	0.84	0.80	Not Significant
19	Conducting regular check-ups of battery, oil levels, and engine performance.	0.78	0.79	1.73	Not Significant
20	Avoiding overtaking in dangerous areas or where it is prohibited.	0.62	0.70	-0.56	Not Significant

**Key:**

**SD<sub>1</sub>** = Standard deviation of automobile drivers.

**SD<sub>2</sub>** = Standard deviation of tricycle riders.

**t-cal** = t-test calculation.

**t-critical** = +1.99

The analyses on table 4.1 discloses the two groups of respondents agree that all items were agreed upon as the safety practices employed by both parties. Table 4.4 shows that the t-test accepts the null hypothesis as there is no significant difference between the mean responses of the automobile drivers and tricycle riders on the safety practices employed by automobile drivers and tricycle riders in Minna Metropolis Niger State in Section A. As a result, null hypothesis one was accepted at 0.05 level of confidence, hence the null hypothesis stated is accepted.

#### **4.5 Hypothesis 2**

There is no significant difference between the mean responses of automobile drivers and tricycle riders in Minna Metropolis, Niger State on the ways safety practices can be improved.

**Table 4.5: t-test analysis of the mean response of automobile drivers and tricycle riders on the ways of improving safety practices in Minna Metropolis, Niger State.**

S/N	ITEMS	SD <sub>1</sub>	SD <sub>2</sub>	t-cal	REMARK
1	Provide drivers and riders safety training classes.	0.76	0.88	1.18	Not Significant
2	Increase the number of traffic officers on the roads.	0.87	0.99	1.31	Not Significant
3	Increase the number of road safety signs and markings on the road.	0.76	0.65	0.82	Not Significant
4	Install speed limit signs and road bump on the roads.	0.94	0.87	-0.25	Not Significant
5	Make regular vehicle inspections mandatory.	0.69	0.75	0.24	Not Significant
6	Provide speed limit reminders on the road.	0.88	0.79	-0.62	Not Significant
7	Provide helmets for drivers and riders.	0.53	0.49	1.49	Not Significant
8	Strict implementation of laws and penalties for overspeeding and reckless driving.	0.55	0.72	0.36	Not Significant
9	Develop a system for monitoring and enforcing traffic rules such as CCTV cameras on the road.	0.79	0.89	0.58	Not Significant
10	Create designated parking areas for tricycles.	0.69	0.67	0.40	Not Significant
11	Establish a network of emergency response teams for quick response to road accidents.	0.52	0.72	-0.65	Not Significant
12	Improving road channels to make sure they're safe for drivers and riders.	0.65	0.49	1.13	Not Significant

**Key:**

**SD<sub>1</sub>** = Standard deviation of automobile drivers.

**SD<sub>2</sub>** = Standard deviation of tricycle riders.

**t-cal** = t-test calculation.

**t-critical** = +1.99

Table 4.5 shows that the t-test accepts the null hypothesis as there is no significant difference between the mean responses of the automobile drivers and tricycle riders on the ways of improving safety practices in Minna Metropolis Niger State in Section C. As a result, null hypothesis one was accepted at 0.05 level of confidence, hence the null hypothesis stated is accepted.

#### **4.6 Summary of Findings**

The findings of the study have been organized and discussed according to the three research questions as well as the two hypotheses that have been formed.

The study revealed the following to be the safety practices which are employed and used by automobile drivers and tricycle riders in Minna Metropolis, Niger State:

- i. Wearing seat belts while driving or riding.
- ii. Following traffic laws and signals.
- iii. Keeping a safe distance from other vehicles.
- iv. Avoiding distractions while driving or riding.
- v. Conducting regular maintenance checks on their vehicles.
- vi. Avoiding drunk driving.
- vii. Avoiding overloading of passengers or cargo.
- viii. Conducting regular check-ups of brakes and tires.
- ix. Avoiding aggressive or reckless driving.
- x. Keeping the vehicle in good working condition.
- xi. Keeping the vehicle registration and insurance updated.
- xii. Avoiding the use of mobile phones while driving or riding.
- xiii. Avoiding excessive speeding.
- xiv. Keeping the windshield and mirrors clean for clear visibility.
- xv. Conducting regular check-ups of steering, suspension and brakes.
- xvi. Avoiding road rage and aggressive behaviour towards other drivers or riders.
- xvii. Checking weather conditions and adjusting driving behaviour accordingly.
- xviii. Avoiding sudden lane changes or merging.
- xix. Conducting regular check-ups of battery, oil levels, and engine performance.
- xx. Avoiding overtaking in dangerous areas or where it is prohibited.

The study revealed the following to be the safety practices that are effective according to automobile drivers and tricycle riders in Minna Metropolis, Niger State:

- i. Wearing seat belts while driving or riding.
- ii. Following traffic laws and signals.
- iii. Keeping a safe distance from other vehicles.
- iv. Avoiding distractions while driving or riding.
- v. Conducting regular maintenance checks on their vehicles.
- vi. Avoiding drunk driving.
- vii. Avoiding overloading of passengers or cargo.
- viii. Conducting regular check-ups of brakes and tires.
- ix. Avoiding aggressive or reckless driving.
- x. Keeping the vehicle in good working condition.
- xi. Keeping the vehicle registration and insurance updated.
- xii. Avoiding the use of mobile phones while driving or riding.
- xiii. Avoiding excessive speeding.
- xiv. Keeping the windshield and mirrors clean for clear visibility.
- xv. Conducting regular check-ups of steering, suspension and brakes.
- xvi. Avoiding road rage and aggressive behaviour towards other drivers or riders.
- xvii. Checking weather conditions and adjusting driving behaviour accordingly.
- xviii. Avoiding sudden lane changes or merging.
- xix. Conducting regular check-ups of battery, oil levels, and engine performance.
- xx. Avoiding overtaking in dangerous areas or where it is prohibited.

The study revealed the following to be ways recommended in improving the safety of automobile drivers and tricycle rides in Minna Metropolis, Niger State:

- i. Provide drivers and riders safety training classes.
- ii. Increase the number of traffic officers on the roads.

- iii. Increase the number of road safety signs and markings on the road.
- iv. Install speed limit signs and road bump on the roads.
- v. Make regular vehicle inspections mandatory.
- vi. Provide speed limit reminders on the road.
- vii. Strict implementation of laws and penalties for overspeeding and reckless driving.
- viii. Develop a system for monitoring and enforcing traffic rules such as CCTV cameras on the road.
- ix. Create designated parking areas for tricycles.
- x. Establish a network of emergency response teams for quick response to road accidents.
- xi. Improving road channels to make sure they're safe for drivers and riders.

#### **4.7 Discussion of Findings**

The result from the Table 4.1 revealed that all items were agreed upon with mean score ranging from 3.30 to 4.49. The table provides data to understand people's attitudes towards safe driving practices. The survey results suggest that people generally agree that safe driving practices are important and should be followed. The top five safe driving practices that are both considered important and followed by people are, avoiding drunk driving, wearing seat belts while driving or riding, avoiding excessive speeding, keeping a safe distance from other vehicles, Conducting regular check-ups of steering, suspension, and brakes.

On the other hand, conducting regular maintenance checks on their vehicles and keeping the vehicle in good working condition are considered important but not always followed. The survey also suggests that people feel that avoiding the use of mobile phones while driving or riding, and keeping the windshield and mirrors clean for clear visibility are not as important as other safe driving practices.

Table 4.2 shows the response of drivers and riders on the effectiveness of the safety practices employed. Based on the responses of the participants, it can be concluded that the safety practices listed are effective in preventing accidents among automobile drivers and tricycle riders in Minna Metropolis, Niger State. Most of the items on the list received high scores, with an average score of 4.16 out of 5. This suggests that the participants strongly agreed that the safety practices listed are effective in preventing accidents.

The most effective safety practices, according to the participants, are wearing seat belts while driving or riding, following traffic laws and signals, keeping a safe distance from other vehicles, and avoiding distractions while driving or riding. These practices received an average score of 4.20 or higher. However, there were a few items on the list that received lower scores, such as conducting regular check-ups of steering, suspension, and brakes, and checking weather conditions and adjusting driving behavior accordingly. These items received an average score of 3.62 and 3.25, respectively.

Overall, it is important to note that while these safety practices are effective in preventing accidents, it is still possible for accidents to occur. Therefore, it is important for drivers and riders to remain vigilant and practice safe driving habits at all times.

Based on the results in Table 4.3, it can be concluded that most of the proposed recommendations were agreed upon by both automobile drivers and tricycle riders. Recommendations such as providing safety training classes, increasing the number of traffic officers on the roads, increasing the number of road safety signs and markings on the road, making regular vehicle inspections mandatory, providing speed limit reminders on the road, strict implementation of laws and penalties for overspeeding and reckless driving, developing a system for monitoring and enforcing traffic rules such as CCTV cameras on the road, creating designated parking areas for tricycles, establishing a network of emergency response teams for quick response to road

accidents, and improving road channels to make sure they're safe for drivers and riders were all agreed upon.

However, the recommendation to provide helmets for drivers and riders received a low mean score, indicating disagreement.



## CHAPTER FIVE

### 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary of the Study

The study titled Assessment of Safety Practices Amongst Automobile Vehicle Drivers and Tricycle Riders in Minna Metropolis, Niger State was designed and structured towards the following purposes:

- i. To ascertain the safety practices that are being utilized by automobile drivers and tricycle drivers and tricycle riders in Minna Metropolis, Niger State.
- ii. To identify the safety practices which help in the prevention of accidents according to automobile drivers and tricycle riders in Minna Metropolis, Niger State.
- iii. To make recommendations for the further improvement of the safety of automobile drivers and tricycle riders in Minna Metropolis, Niger State.

In order to achieve the purpose of the study, three research questions were formulated from the purpose of the study to serve as a guide. Furthermore, two null hypotheses were formulated based on the research question which was tested at 0.05 level of significance.

Related literatures were also reviewed under the following sub-headings:

- i. The prevalence of unsafe driving practices amongst road users.
- ii. Environmental-related factors of road traffic accidents.
- iii. The impact of unsafe driving practices on the road.
- iv. The impact of road traffic incidents on society.
- v. Road safety and human behaviour.
- vi. Vehicle design and infrastructure on road safety.
- vii. Overview of road traffic crashes in Nigeria.
- viii. Road traffic data in Nigeria.

ix. Road traffic data in Minna metropolis, Niger state.

A survey research design was adopted to develop and formulate the instruments for the study. The targeted population for the study was a hundred (100) respondents which consist of fifty (50) automobile drivers and fifty (50) tricycle riders in Minna Metropolis, Niger State. The population was sampled and were selected based on the criteria, age (minimum 25 years), gender (male and female), and driving experience (minimum of one year and six months).

A questionnaire was structured into two parts namely Part 1 and 2, while the first section introduced the respondents, the second part consisted of three sections namely Section A, B and C which corresponds to the research questions served as instrument for data collection. This instrument was scored using five (5) point rating scale. The data collected was analysed using mean, standard deviation, and t-test. A mean score of 3.0 was chosen to interpret the item of the data collected as Agreed and a mean score under 2.99 was chosen to interpret the item as Disagreed.

After analyses, the null hypotheses stated earlier were not rejected, as there was no significant difference in the responses of the respondents in both proposed hypotheses.

## **5.2 Implications of the Study**

The study titled "Assessment of Safety Practices Amongst Automobile Drivers and Tricycle Rider in Minna, Niger State" has several implications based on its stated objectives. The first objective of the study is to identify the safety practices employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State. The implications of this objective are that the study can help to highlight the current state of safety practices in the area. This information can be used to develop targeted interventions and policies to improve road safety.

The second objective of the study is to understand what automobile drivers and tricycle riders determine to be effective in preventing accidents, this will identify the strategies they themselves

believe are the most effective in preventing accidents, policy makers and road safety organization can design interventions that are more likely to be accepted and adopted by drivers. Furthermore, the study can provide guidance for policymakers and other stakeholders about the most effective strategies for improving road safety.

Overall, the study has important implications for improving road safety in Minna Metropolis, Niger State. By identifying current safety practices, assessing their effectiveness, and making recommendations for improvement, the study can help to reduce the number of accidents and improve the overall safety of the region's roads.

### **5.3 Contribution to Knowledge**

This research work contributes to our understanding of the road safety practices in the region. It provides insights into the level of awareness of road safety regulations, the prevalence of risky behaviour on the road, and the factors that contribute to unsafe driving practices.

The findings of the study can be used by policymakers and stakeholders in the transportation sector to develop interventions aimed at improving road safety practices in Minna Metropolis, Niger State. This could include education and awareness campaigns, targeted enforcement of road safety regulations, and investment in technology-based solutions to improve road safety.

In general, the study provides a contribution to the comprehension of the safety practices observed by automobile drivers and tricycle riders in Minna Metropolis, Niger State.

### **5.4 Recommendations**

The safety of automobile drivers, tricycle riders even other road users is a crucial issue for any society. Road accidents and fatalities have devastating impacts on families and communities. To mitigate the risks, several strategies can be implemented, and the following are some key proposals based on the results and conclusions of the study:

1. Provide drivers and riders safety training classes: Driver and rider training courses are essential in promoting road safety. These courses teach drivers and riders safe driving practices and help them to identify and avoid potential hazards. It is crucial to offer these courses to all drivers and riders, including experienced ones, to improve their skills and promote safety on the roads.
2. Increase the number of traffic officers on the roads: More traffic officers on the roads can help to enforce traffic laws and regulations, and prevent reckless driving. Traffic officers can also help to control traffic flow and respond quickly to accidents, reducing the risks of fatalities.
3. Increase the number of road safety signs and markings on the road: Road safety signs and markings are essential to ensure that drivers and riders are aware of potential hazards and follow traffic rules. Increasing the number of road safety signs and markings can improve road safety by reducing confusion and promoting safe driving practices.
4. Install speed limit signs and road bumps on the roads: Speeding is a significant cause of accidents, and installing speed limit signs and road bumps can help to control the speed of drivers and riders. Speed bumps can reduce the speed of vehicles, especially in residential areas, and help to prevent accidents.
5. Make regular vehicle inspections mandatory: Regular vehicle inspections can identify potential safety issues and prevent accidents. It is essential to make these inspections mandatory and enforce compliance to ensure that all vehicles on the roads are roadworthy and safe to operate.
6. Provide speed limit reminders on the road: Speed limit reminders, such as signs or markings on the roads, can help drivers and riders to adhere to speed limits, reducing the

risks of accidents. These reminders can also be incorporated into GPS systems and other technologies to help drivers and riders maintain safe speeds.

7. Strict implementation of laws and penalties for overspeeding and reckless driving: Enforcing laws and penalties for overspeeding and reckless driving can help to promote road safety by deterring dangerous driving behavior. It is crucial to ensure that these laws are enforced strictly and consistently to send a clear message that dangerous driving is not tolerated.
8. Develop a system for monitoring and enforcing traffic rules such as CCTV cameras on the road: CCTV cameras can help to monitor traffic and enforce traffic laws. These cameras can also capture footage of accidents, providing valuable evidence for investigations and court cases. Implementing a system of CCTV cameras can promote road safety by deterring dangerous driving behavior and helping to catch offenders.
9. Create designated parking areas for tricycles: Designated parking areas for tricycles can help to reduce congestion on the roads and improve safety for all road users. Tricycles parked on the roads can create hazards for other vehicles, and designated parking areas can help to prevent accidents and promote safe driving practices.
10. Establish a network of emergency response teams for quick response to road accidents: Quick response to road accidents is crucial in reducing the risks of fatalities and injuries. Establishing a network of emergency response teams can help to ensure that accidents are responded to promptly, reducing the risks of further accidents and fatalities.
11. Improving road channels to make sure they're safe for drivers and riders: Road channels, such as curves and intersections, can create hazards for drivers and riders. Improving these channels, such as widening them or adding traffic lights, can help to promote road

safety and reduce accidents. It is essential to identify and address potential hazards on the roads continually.

### **5.5 Conclusion**

In view of the findings, it was concluded that more strategies need to be in place to be able to mitigate road accidents and increase the safety of automobile drivers and tricycle riders in Minna Metropolis, Niger State. Some of these strategies may be present in other parts of the country, but Minna Metropolis, Niger State is in dire need for these strategies to be able to further increase the safety of automobile drivers and tricycle riders in the state.

### **5.6 Suggestion for Further Study**

The following suggestions have been made for further research:

1. Exploring the attitudes and perceptions of automobile drivers and tricycle riders towards road safety and identifying ways to promote a positive safety culture.
2. Investigating the impact of weather and environmental conditions, such as rain and fog, on road safety among automobile drivers and tricycle riders in Minna, Niger State.

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**APPENDIX A**

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION**

AUTO-MECHANICS TECHNOLOGY  
BUILDING TECHNOLOGY  
ELECTRICAL/ELECTRONIC TECHNOLOGY  
METAL WORK TECHNOLOGY  
WOOD WORK TECHNOLOGY  
DATE \_\_\_\_\_

YOUR REF: \_\_\_\_\_

OUR REF: \_\_\_\_\_

**LETTER OF INTRODUCTION FOR CANDIDATE CONDUCTING RESEARCH WORK**

-----with Matric No-----  
is an Undergraduate student of the Department of Industrial and Technology Education of the Federal University of Technology, Minna. He/She is currently undertaken a research work titled:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

It would be highly appreciate if you could supply him/her with the necessary information he/she may require from you. All information supplied will be used solely for this research work and will be treated as confidential.

Thank you so much for your cooperation.

**A.M. HASSAN**  
*Project Coordinator*

## APPENDIX B

### FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION

#### QUESTIONNAIRE ON SAFETY PRACTICES AMONGST AUTOMOBILE VEHICLE DRIVERS AND TRICYCLE RIDERS IN MINNA METROPOLIS, NIGER STATE.

INSTRUCTION: Kindly complete the questionnaire by ticking the column [  ] that

Please be as honest as you can, all information provided will be highly confidential and strictly used for the purpose of research work.

#### **PART 1: Personal Data.**

- Automobile Driver [  ] Tricycle Rider [  ]
- Above 25 years of age [  ]
- Gender: Male [  ] Female [  ]
- Driving experience above 1 year 6 months [  ]

#### **PART 2**

INSTRUCTION: a list of statement is provided to ascertain your opinion of the safety practices indulged by automobile drivers and tricycle riders, the effectiveness of those practices and recommendations to improve the safety of automobile drivers and tricycle riders in Minna Metropolis, Niger State.

## SECTION A

### Research Question 1

What safety practices are employed by automobile drivers and tricycle riders in Minna Metropolis, Niger State?

S/N	ITEMS	SA	A	U	D	SD
1.	Wearing seat belts while driving or riding.					
2.	Following traffic laws and signals.					
3.	Keeping a safe distance from other vehicles.					
4.	Avoiding distractions while driving or riding.					
5.	Conducting regular maintenance checks on their vehicles.					
6.	Avoiding drunk driving.					
7.	Avoiding overloading of passengers or cargo.					
8.	Conducting regular check-ups of brakes and tires.					
9.	Avoiding aggressive or reckless driving.					
10.	Keeping the vehicle in good working condition.					
11.	Keeping the vehicle registration and insurance updated.					
12.	Avoiding the use of mobile phones while driving or riding.					
13.	Avoiding excessive speeding.					
14.	Keeping the windshield and mirrors clean for clear visibility.					
15.	Conducting regular check-ups of steering, suspension and brakes.					
16.	Avoiding road rage and aggressive behaviour towards other drivers or riders.					
17.	Checking weather conditions and adjusting driving behaviour accordingly.					
18.	Avoiding sudden lane changes or merging.					
19.	Conducting regular check-ups of battery, oil levels, and engine performance.					
20.	Avoiding overtaking in dangerous areas or where it is prohibited.					

## SECTION B

### Research Question 2

How effective are these safety practices in preventing accidents among automobile drivers and tricycle riders in Minna Metropolis, Niger State?

S/N	ITEMS	SA	A	U	D	SD
21.	Wearing seat belts while driving or riding.					
22.	Following traffic laws and signals.					
23.	Keeping a safe distance from other vehicles.					
24.	Avoiding distractions while driving or riding.					
25.	Conducting regular maintenance checks on their vehicles.					
26.	Avoiding drunk driving.					
27.	Avoiding overloading of passengers or cargo.					
28.	Conducting regular check-ups of brakes and tires.					
29.	Avoiding aggressive or reckless driving.					

30.	Keeping the vehicle in good working condition.					
31.	Keeping the vehicle registration and insurance updated.					
32.	Avoiding the use of mobile phones while driving or riding.					
33.	Avoiding excessive speeding.					
34.	Keeping the windshield and mirrors clean for clear visibility.					
35.	Conducting regular check-ups of steering, suspension and brakes.					
36.	Avoiding road rage and aggressive behaviour towards other drivers or riders.					
37.	Checking weather conditions and adjusting driving behaviour accordingly.					
38.	Avoiding sudden lane changes or merging.					
39.	Conducting regular check-ups of battery, oil levels, and engine performance.					
40.	Avoiding overtaking in dangerous areas or where it is prohibited.					

### SECTION C

#### Research Question 3

What recommendations can be made for improving safety practices among automobile drivers and tricycle riders in Minna Metropolis, Niger State?

S/N	ITEMS	SA	A	U	D	SD
41.	Provide drivers and riders safety training classes.					
42.	Increase the number of traffic officers on the roads.					
43.	Increase the number of road safety signs and markings on the road.					
44.	Install speed limit signs and road bump on the roads.					
45.	Make regular vehicle inspections mandatory.					
46.	Provide speed limit reminders on the road.					
47.	Provide helmets for drivers and riders.					
48.	Strict implementation of laws and penalties for overspeeding and reckless driving.					
49.	Develop a system for monitoring and enforcing traffic rules such as CCTV cameras on the road.					
50.	Create designated parking areas for tricycles.					
51.	Establish a network of emergency response teams for quick response to road accidents.					
52.	Improving road channels to make sure they're safe for drivers and riders.					

## **REQUEST LETTER TO VALIDATORS**

Industrial and Technology Education  
Department  
Federal University of Technology,  
P.M.B. 65,  
Minna,  
12<sup>th</sup> January, 2023.

Dear Sir,

### **REQUEST FOR FACE VALIDATION OF INSTRUMENT FOR ASSESSING THE SAFETY PRACTICES AMONGST AUTOMOBILE DRIVERS AND TRICYCLE RIDERS IN MINNA METROPOLIS.**

I am an undergraduate student of the above-named address currently undertaking a study on the topic: ASSESSMENT OF SAFETY PRACTICES AMONGST AUTOMOBILE DRIVERS AND TRICYCLE RIDERS IN MINNA METROPOLIS, NIGER STATE.

Attached is the draft copy of the instrument. As an expert in this area, your assistance is hereby solicited to enable me accomplish this task. Kindly go through the item to verify their clarity, relevance and appropriateness in the use of language. In addition to this you can also make further suggestions that will improve the status and quality of the instrument. Your contribution to this work is highly appreciated.

Thank you.

Yours faithfully,

**IDRIS HAFIZ**

**2016/1/63726TI**

Department of Industrial and Technology  
Education,  
Federal University of Technology,  
P.M.B. 65,  
Minna, Niger State.  
7th February, 2023

Dear Respondent,

**REQUEST FOR RESPONSE TO QUESTIONNAIRE**

I am a final year student of the above-mentioned institution, undertaking a study titled:  
**“ASSESSMENT OF SAFETY PRACTICES AMONGST AUTOMOBILE  
VEHICLE DRIVERS AND TRI-CYCLE RIDERS IN MINNA METROPOLIS,  
NIGER STATE”.**

Your objective responses are highly needed in ascertaining the facts under investigation. Please feel free and open to share your mind objectively, for your responses have great impact on the findings. All collected responses will be used only for this research and treated confidentially.

Thank you.

Yours faithfully,  
IDRIS, HAFIZ  
2016/1/63726TI