

BINDURA UNIVERSITY OF SCIENCE EDUCATION
DEPARTMENT OF SUSTAINABLE DEVELOPMENT



**EXAMINING STRATEGIES FOR ENHANCING ROAD SAFETY AND
MITIGATING ROAD TRAFFIC ACCIDENTS IN HARARE METROPOLITAN
PROVINCE**

By

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DECLARATION FORM

I, Matilda Sharmine Manyanga declare that this dissertation ‘Examining strategies for enhancing road safety and mitigating road traffic accidents in Harare Metropolitan Province’ in partial fulfillment of the requirements for the Bachelor of Science Honors Degree in Development studies and Geosciences at Bindura University of Science Education, is the result of my own research and study. All sources of information used have been duly acknowledged through complete and accurate citations and references.

A handwritten signature in blue ink, appearing to be 'M. Manyanga', enclosed within a hand-drawn oval.

Student's signature :

Date: 19/06/ 2025

APPROVAL

The undersigned approves that this research was supervised and was approved for final submission to the Department of Geosciences at Bindura University of Science Education.

Signed:
Supervisor

Date: 19/06/2025

Signed.....
Chairperson

DEDICATION

I dedicate this dissertation to all road users, the drivers navigating long commutes, the cyclists sharing the streets, the pedestrians crossing with care, the children walking to school, the children walking to school and the families travelling near and far. May this work contribute in some small way to making your journey's safer and our shared spaces more secure. Recognizing the inherent vulnerability, we share in the traffic environment, this research is dedicated to enabling an understanding and designing systems that prioritize the safety and dignity of all.

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My eternal gratitude to my parents for their never ending toil to make sure I had everything I needed during this 4-year stint at this prestigious university. To my best friend, my husband, A Moyo, this project was inspired by you as you have been nothing short of a blessing in support during my time at the university. The Development Studies Class of 2025, you guys are the best group of classmates anyone could ever wish for, thank you. My lecturers you are well appreciated as you have accommodated each of our whims. Last but not least, I would like to give thanks to the Almighty God, YHWH, for His protection, provision and guidance without whom literally nothing would be possible. Glory Be to God Forever.

ABSTRACT

The study examines the effective strategies for enhancing road safety and mitigating road traffic accidents in Harare Metropolitan which is Zimbabwe's rapidly urbanizing capital. Framed within pragmatism theory, the research prioritizes practical context specific solutions over rigid methodologies focusing on identifying actionable interventions that yield tangible safety improvements within Harare's socio-infrastructure environment. Utilizing a mixed methods approach including accident data analysis, key informant interviews, questionnaires and direct observations, the investigation sought understand the interplay between driver behavior, vehicle conditions, poor road infrastructure, enforcement challenges and urban

planning factors contributing to accidents. The target population encompasses key stakeholders directly affected or involved in Harare's road safety ecosystem and these include traffic police officers, public transport drivers (kombi drivers), licensed private motorists and pedestrians. By engaging this diverse population, the study aims to develop evidence based sustainable and pragmatic strategies to address the root causes of accidents and are practical for implementation by relevant authorities and adoption by road users, ultimately contributing to a safer urban transport network.

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LIST OF ACRONYMS

RTA:	Road Traffic Accidents
TSCZ:	Traffic Safety Council of Zimbabwe
ZRP:	Zimbabwe Republic Police
CBD:	Central Business District
SADC:	Southern African Development Community

UN: United Nations
WHO: World Health Organization

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter is focusing on introducing the research topic and give an insight on what is further discussed throughout the research. It is going to provide background information to help readers understand the importance of the research topic. The chapter explored more on the causes and factors that result in road traffic accidents. The research also includes views of other scholars on their global and local perspectives to the study. It also involves main stakeholders involved in road safety such as pedestrians, drivers and even traffic officers. Most importantly this chapter addresses the significance of this study.

1.2 Background of the study

Following five successive United Nations(UN)on improving road safety since 2004 which are A/RES/58/289 (2004), A/RES/60/5 (2005), A/RES/62/244 (2008), A/RES/64/255 (2010) and A/RES/70/260 (2015), the UN Rio conference of world leaders highlighted in discussion of the future we want (UN, 2012) ‘the importance of the efficient movement of people and good and access to environmentally sound, safe and affordable transportation as a means to improve social equity, health, resilience of cities, urban rural linkages and productivity of rural areas. In this regard we consider road safety as part of our efforts to achieve sustainable development’ (UN, 2012). The World Health Organization (WHO) has also collaborated with other UN agencies and regional commissions and the UNRSC to develop 12 voluntary Global Road Safety Performance Targets (WHO, 2017).

The recent global health situation revealed the relevance of road safety initiatives in crisis settings and the need to adapt our efforts (Todt, 2021). Sustainable and vibrant transport systems can lead to long term economic growth. If designed well transport facilitates access to opportunities, education, medical services and goods and improves overall quality of life. However, if all the relevant considerations are not taken into account, new road and transport infrastructure yield the opposite result. This makes the crisis on the world’s roads one of the most pressing development challenges of our time. Despite the lessons learnt and resources accumulated through the first decade of Action for Road Safety, we have achieved no decreases in the number of global annual road traffic deaths (Todt, 2021).

The Global status report on road safety 2023 details the scale of global traffic deaths and progress in advancing laws, strategies and actions to reduce them around the world. It provides

an overview of progress between 2020 and 2021 and sets a baseline for the United Nations Decade of Action for Road Safety 2021-2030 target of halving road traffic deaths and injuries by 2030 (WHO, 2023). While road traffic death rates in many high-income countries have stabilized or declined in recent decades, data suggest that in most regions of the world they are increasing as a result of rapidly increasing motorization combined with insufficient prevention activities. It has been estimated that, unless immediate action is taken, road deaths will rise to become the fifth leading cause of death by 2030, resulting in an estimated 2.4 million fatalities per year (Toroyan, 2009)

The World Health Organization reported that road traffic death rates in the past decade have increased significantly in the African region, with almost 250 000 lives lost on the continent's roads in 2021 alone. Between 2020 and 2021 the region recorded a 17% increase in road related fatalities 'according to the WHO status report on road safety 2023 for the African region, the latest update. The region accounts for nearly one-fifth of all road deaths globally, despite being home to only 15% of the world's population and 3% of its vehicles. WHO reports that males aged 15 to 64 years are the main victims of road traffic crashes. Vulnerable road user such as motor cyclists and pedestrians are worst affected, with the road related deaths of motor cyclists doubling in the past 10 years (WHO, 2024).

In a statistical analysis in Harare Metropolitan, Zimbabwe, it analyzes that young, inexperienced drivers are 2.5 times more likely to crash than more experienced motorists when their blood alcohol level is 0.05g/dl or higher (Chibaro, 2024). Unsafe road vehicles, unlicensed drivers, overloading, speeding and drunk driving are listed as the most frequent crimes leading to road traffic accidents. The findings showed that violating traffic regulations and engaging in reckless driving by young inexperienced drivers both contribute to the occurrence of road traffic accidents. The findings of this study however concluded that excessive speeding and drunk driving while driving have been identified as the worst human behavior causing accidents in Zimbabwe but vehicle maintenance play a significant role in the reduction of road traffic accidents (Chibaro, 2024).

The nation of Zimbabwe is working with the globe to achieve the sustainable development goals, especially on number 3 and 6 where they most left behind, in the urge to see the country develop the well-being of its citizens ensuring that human development is acquired. The cases of road traffic accidents are noticed in both high and low-income earning densities as the use

of motor vehicles is now more popular than in the 20th century and the laws surrounding road safety are not being effectively enforced.

The high increase of commuter omnibuses in Harare has also contributed to the increase of road accidents and death tolls. Commuter omnibus drivers work under a lot of pressure to reach their targets and also because of the increase of competition from Mazda wish and Honda fit popularly known as “mushika shika”. As a result, there is excessive speeding from the driver’s competition. Another factor is that most of these commuter omnibuses are unlicensed and do not have the proper documentation which allows them to ferry the public to and from. Due to corruption, it is now easy for drunk drivers and unlicensed drivers to pass through road blocks because they can easily offer money to the officers on the road which is a huge setback in trying to achieve road safety. This shows that there is need for policy makers and law enforcers to effectively emphasize on the consequences of corruption and reckless driving so as to achieve road safety in Harare.

However, despite the current road safety situation in Harare Metropolitan the Traffic Safety Council of Zimbabwe (TSCZ) works tirelessly in order to enhance strategies for road safety and mitigating road traffic accidents by raising awareness to drivers on the importance of compliance with road safety regulations. This is usually done by means of educational roadblocks. These regulations include traffic laws, licensing requirements and vehicle maintenance standards thus avoiding legal penalties but mostly reducing road traffic accidents. The TSCZ also offers Defensive Driving Course, which is compulsory for all public service vehicle drivers and highly recommended for all drivers with essential skills and knowledge to navigate challenging road conditions and unforeseen hazards (TSCZ, 2024).

By partaking on this research study, the researcher aims to promote sustainable development through addressing the gaps and loopholes in current road safety strategies and navigate ways to mitigate road accidents. This study will also educate and raise awareness on the importance of adhering to traffic laws, thus promoting good driving behavior and reducing road carnage.

1.3 Statement of the problem

Fifty-three percent of all road traffic fatalities involve the most vulnerable road users, including pedestrians, motor vehicle drivers and cyclists (WHO, 2023). Road safety advocates around the world are striving to cut the number of deaths and injuries from road traffic crashes in half by 2030 as part of the UN and WHO’s Global Plan for Road Safety (ITDP, 2024). In Africa the risk of road traffic deaths is increasing annually. Statistics from the WHO Africa region show

that road traffic fatality estimates increased from 24.1 per 100 000 population in 2010 to 26.6 per 100 000 population in 2016. If action is not taken, road trauma in Africa is expected to worsen further, with fatalities per capita projected to double from 2015 to 2030 (Gomez, 2021). Overall assessment of road safety performance by means of official statistics confirms that Zimbabwe has not achieved the Sustainable Development Goal target (SDGs) 3.6 of the UN nor that of the Decade for Road Safety to reduce road crash deaths and serious injury by 50% by 2020(UN, 2021). According to TSCZ (2018), Harare city has the highest number of traffic crashes with most of the victims being mainly passengers and pedestrians (UN, 2021). Hence this research is important so as to find strategies to achieve SDGs in line with road safety, the 12 voluntary Global Road Safety Performance Targets as well protecting human lives. By addressing the underlying causes of road traffic accidents, this study seeks to propose comprehensive solutions that can significantly reduce the incidence of accidents and improve overall safety for all road users.

1.4 Aim of the study

The main aim of the study is to examine the strategies for enhancing road safety and mitigating road traffic accidents in Harare

1.5 Research Objectives

- 1 To determine the factors contributing to the current road traffic accident (RTA) trends in Harare
- 2 To examine the effectiveness of existing strategies for enhancing road safety and mitigating road traffic accidents in Harare
- 3 To assess the challenges faced towards for enhancing road safety and mitigating road traffic accidents in Harare
- 4 To propose a sustainable solution-based road safety strategy for enhancing road safety and mitigating road traffic accidents in Harare

1.6 Research Questions

1. What are the factors contributing to road traffic accident (RTA) trends in Harare?
2. How effective are existing strategies for enhancing road safety and in mitigating road traffic accidents in Harare?
3. What are the challenges faced in enhancing strategies for road safety and mitigating road traffic accidents in Harare?

4. What sustainable solution-based practices can be adapted to improve and enhance strategies for road safety and mitigate road traffic accidents in Harare?

1.7 Significance of the study

This research is important to scholars in helping the Traffic safety council of Zimbabwe's aim to operate at the highest level of performance in the promotion of road safety in order to reduce deaths, injury and property damage on Zimbabwe's roads. This study will help us to analyze the most common reasons of road accidents in Harare thus helping with statistics of dire need to other stakeholders that would want to also tackle the Road Safety research mission. This research will further expand the academic knowledge that is already there by getting in the depth of risk reduction and road safety in Zimbabwe. The traffic Safety Council of Zimbabwe and the Ministry of Transport and Infrastructural development will be targeted.

1.7.1 Policy makers

The research seeks to complement the already existing laws by finding sustainable solutions to the loopholes in current laws and informing policy makers on the necessity of making new road safety laws which fight the scourge of road traffic accidents in the nation

1.7.2 Road users

The study is important in informing road users such as pedestrians and vehicle drivers on how they can enhance their knowledge on strategies for road safety and continue to mitigate road accidents by exposing the gaps in the current road safety measures. This research is also important in fostering community involvement in road safety initiatives, raising awareness about responsible driving behaviors and the importance of adhering to traffic laws. By understanding and mitigating road safety risks, the research can help reduce the economic burden associated with road accidents which includes healthcare costs, property damage and loss of productivity.

1.8 Limitations of the study

The study is most likely to be subjected to several limitations that may affect the validity and generalizability of its findings. Initially, the availability of comprehensive and up to date traffic accident data can be constrained, leading to potential in understanding trends and the effectiveness of implemented strategies. Variations in attitudes towards driving and safety can limit the applicability of certain strategies in diverse communities. Also, sudden changes in traffic laws or road safety policies during the study period can complicate the evaluation of specific strategies.

1.9 Definition of key terms

1.9.1. Road safety

The term can be understood as particular environmental conditions that allow operating without accidents and other undesirable events (Kaczynska, 2023). Road safety pertains to the measures taken to reduce the risk of road traffic injuries and death (PAHO). Road safety refers to measures and methods for reducing the risk of a person being involved in a motor vehicle accident (Rocco, 2015). Road safety refers to methods and measures aimed at reducing the likelihood or the risk of persons using the road network getting involved in a collision or an accident that may cause property damage or serious injuries.

1.9.2. Road accident

Road traffic accident is any accident involving at least one road vehicle in motion on any public road or private road to which the public has right of access, resulting in at least one injured or killed (OECD, 2019). A traffic accident is defined as the failure of the road vehicle driver system to perform one or more activities required for the trip to be completed (Ahmed, 2023). Road traffic accident is an incident on a way or street open to public traffic that becomes one of the most critical public health problem in the world especially in developing countries (Honelgn, 2020). In the context of the research a road accident is as an unintentional event that occurs on public or private roadways resulting in damage to vehicles, property or personal injury.

1.9.3. Accident prevention

Accident prevention is the primary task for safety management because accidents cause not only financial loss but reputation damage (Li, 2018). Accident prevention refers to the strategies, preparatory methods and the measures instituted to prevent accidents.

1.9.4. Traffic law

Traffic law refers to the set of rules and regulations that govern the behavior of individuals on the road, including guidelines related to driving, parking and vehicle safety (IJL, 2016). Traffic law is a road safety measure whose effects on accidents or injuries is best described by means of a function rather than a point estimate (Elvik, 2023). In the context of this research, traffic

law refers to the collection of regulations and rules enacted by government authorities to govern the movement of vehicles and pedestrians on roadways.

CHAPTER TWO

LITERATURE REVIEW

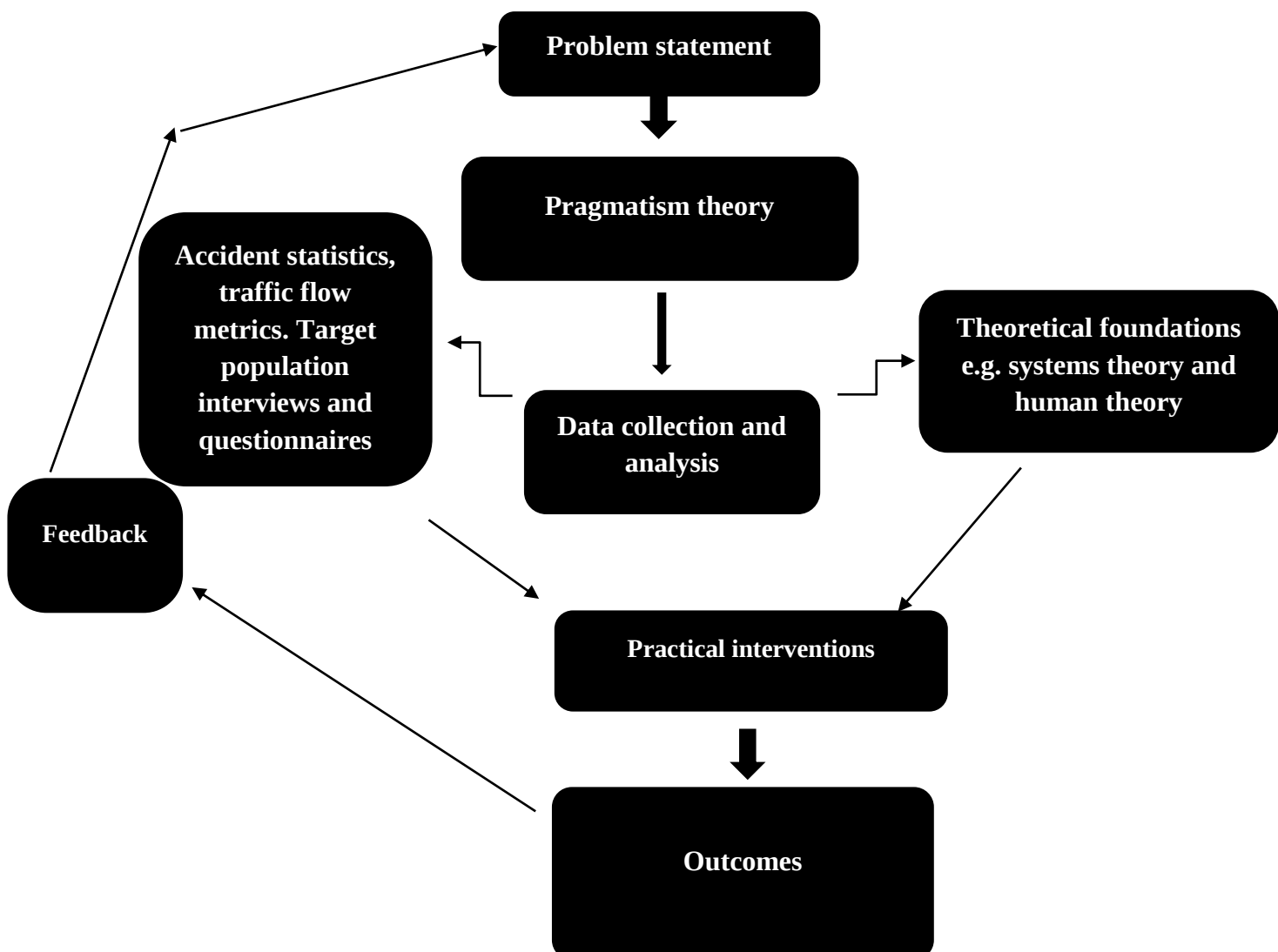
2.1 Introduction

The chapter discussed and examined the theories that are relevant to the research as well as the relevant literature which sought to address the research questions and issues in line with the study. The subject matter exposed much on the causes and challenges surrounding road safety and accident prevention from a global level, regional level, and national level to provincial level. Most importantly the chapter did include the published work of the relevant studies and authors, thereby identifying ways to enhance road safety and mitigate road traffic accidents.

2.2 Conceptual framework

The figure shows the conceptual framework of the study. It shows how the study will progress from the problem statement to the outcomes and feedback of the study.

Figure 2.1 conceptual framework



The figure 2.1 shows a visual of the relationship between variables within this research grounded in pragmatism theory. In line with the theory a mixed method approach was used to collect and analyze data both qualitative and quantitative data, and also the approach was used to analyze theoretical foundations found within the data. The results of data collection and analysis helped in engineering practical solutions such as road design improvements, stricter penalties, public campaigns and accident hotlines, thereby giving productive outcomes such as reduced accidents and safer driver behavior.

2.3 To determine the factors contributing to the current road traffic accidents trends in Harare

To begin with the first objective which was to determine factors contributing to current road traffic accidents trends within Harare. According to the World Health Organization factors such as human errors, unsafe road infrastructure, unsafe vehicles, inadequate post-crash care and inadequate law enforcement of traffic laws are the cause of current road traffic trends around the globe (WHO, 2023). As per the investigation on road traffic accidents in the African continent, the majority of researchers and research articles revealed that human related factors like speed driving, overtaking, reckless driving, fatigue, drunk driving, drugs, seatbelt, sleeping and cellphone usage accounted a causes for more than three fourth of road traffic accident causes (Deme, 2019). In Zimbabwe findings reveal that driver inattention contributed to 46.8% of accidents while speeding accounted for 11%. Additionally, road design was identified as a significant factor contributing to accidents (Rumutsa, 2025).

Road traffic accidents are influenced by a range of factors that vary by region but share commonalities, research indicates that human factors, including fatigue and distraction from mobile devices play a significant role in accidents globally. In particular, the lack of proper traffic management and enforcement exacerbates these issues, highlighting the need for comprehensive strategies to enhance road safety across different contexts.

2.4 Effectiveness of existing strategies for enhancing road safety and mitigating road traffic accidents

A wide variety of strategies and policies have been implemented around the world to minimize injuries and fatalities resulting from road traffic collisions (Akbari, 2024). Current road traffic efforts prioritize changing how people behave on the roads (training, laws, enforcement) over making the roads safer. Focusing on fixing the entire system rather than blaming drivers is necessary for a complete picture (Akbari, 2024). Despite several global resolutions to reduce traffic injuries, they have continued to grow in many countries. Many high income countries

have successfully reduced road traffic accidents by using a public health approach and implementing evidence based interventions (Goel, 2024).

Respectively, legislative and road safety interventions effectively reduced road traffic crashes by 26% and 16.7% in high income countries. The World Health Organization reports that Africa's road traffic death rate is 26.6 per 100,000 populations, nearly triple the European average (WHO, 2018). The World Bank's Africa Transport Policy Program reported a 15% reduction in fatalities in countries investing in infrastructure such as Rwanda and Ethiopia. South Africa's 'Arrive Alive' campaign, coupled with stricter enforcement reduced fatalities by 22% between 2010 and 2018 (WHO, 2018).

In Harare, Zimbabwe upgraded intersections in the Central Business District (CBD) reduced collisions by 18% (COH, 2020). Also the Zimbabwe Republic Police (ZRP) 'Name and Shame' campaign (2020-2022) reduced drunk driving fatalities by 15% in Harare (ZRP, 2022). These public strategies and policies and the prevention of safety rules introduced are proving insufficient to act effectively on road use and attenuate the curve of road accidents despite the effort deployed by the various stakeholders in this field. This problem threatens all levels of society and calls for public action to make roads safer. Improving road safety requires restructuring framework to pacify social and economic security.

2.5 Assessing the challenges faced towards for enhancing road safety and mitigating road traffic accidents

Global road safety challenges are interconnected and rooted in systemic inequities. Enhancing road safety requires addressing interconnected challenges such as human errors, aging infrastructure, corruption, urbanization pressures and cultural attitudes. Without systemic and political commitment, global targets like the UN'S SDG3.6 'to halve road deaths by 2030' will remain out of reach.

Growing vehicle ownership and rapid urbanization have increased the incidence of road crashes in Africa. Despite being the least motorized region, it has the highest road traffic fatality rates in the world and nearly half of the victims include vulnerable road users such as pedestrians, cyclists and motorcyclists. The socio- economic impacts of road crashes and related injuries are not only harming the continent's development but also affecting the livelihoods of countless African families. Road transport is the dominant mode of motorized transport but traffic operations is unsafe due to many variables poor road use and old vehicle fleet. Generally, road traffic concentrates at and near urban centers and on specific major roads.

In most African counties post-crash care is weak or non-existent. Above all with these risk factors of road crash governance and commitment are important concerns in Africa worsening the situation (ADBG, 2013)

In Harare (Chikuruwo, 2019) reported that 40% of Harare traffic police admitted to accepting bribes hence undermining enforcement. Also that Vehicle Safety Standards in Zimbabwe are deteriorating, over 70% of Harare's public transport fleet consists of aging kombis and buses, often overloaded and poorly maintained (Gandizhe, 2020). A study by (Chibharo, 2024) shows that young inexperienced drivers are 2.5 times more likely to crash than more experienced motorists when their blood alcohol level is 0.05g/dl or higher. Unsafe road vehicles, unlicensed drivers, overloading, speeding and drunk driving are listed as the most frequent crimes leading to road traffic accidents.

2.6 Theoretical Framework

The theory used in this study was the pragmatism theory which originated in the United States around 1870, and now presents a growing third alternative to both analytic and continental philosophical traditions worldwide. The theory was founded by Charles Sanders Peirce, William James and Josiah Royce (Legg, 2024). These pragmatists focused significantly on theorizing inquiry, meaning and the nature of truth, although James put these themes to work exploring truth in religion. A second generation turned pragmatists philosophy more explicitly towards politics, education and other dimensions of social improvement (Legg, 2024).

The theory is an approach that prioritizes practical outcomes over rigid principles, emphasizing what works in real world contexts. In road safety, pragmatism focuses on adaptable evidence based solutions to reduce accidents and save lives, rather than adhering strictly to theoretical ideals. Pragmatism emphasizes that we understand the world and solve its problems through the application of subjective and objective methods. Pragmatists researchers prioritizes the practical implications of the research outcomes in solving the problem under investigation. Combining quantitative and qualitative approaches provides a pragmatists researcher with a comprehensive understanding of the problem within its context. The focus is to come up with actionable knowledge that addresses the problem and provides guidance to decision makers. The main aim is to generate practical knowledge that is actionable, viable and relevant to real world challenges (Elgeddawy, 2024).

The theory has three basic assumptions, the first one being inquiry as an experiential process, according to Dewey (2008) all conscious human actions involve some amount of inquiry or

assessment in response to a problem or obstacle. This inquiry or assessment is followed by adaptation and altered behavior in response to the problem. This embeddedness of inquiry in practical everyday situations makes classical pragmatism relevant to theoreticians and practitioners alike (Kelly, 2020). Moving to another assumption that is emphasis on actionable knowledge which is of the view that all research should emanate from a desire to produce useful and actionable knowledge, solve existential problems or re-determine indeterminate situations drawn from examinations of effective habits or ways of acting (Kelly, 2020).

By emphasizing this principle of actionable knowledge as a starting point for research, researchers can develop research agendas anchored in respondent experiences and hence ensure the research is of practical relevance. The emphasis on useful practice based knowledge is particularly relevant in shaping the scope of academic research agendas in applied fields such as international and community development (Kelly, 2020). The last assumption is recognition of the interconnectedness of experience, knowing and acting. By seeking a better understanding of the organizational process under investigation and documenting actions and experiences of staff whether well planned or haphazard, pragmatists researchers are able to surface complex themes and issues hidden in formal documentation or rhetoric. This can be achieved through triangulation of what respondents say or what can be observed.

Applying this theory to the research prioritizes experiential, problem driven solutions over rigid theoretical frameworks. Rooted in real world challenges such as high risk intersections or recurring accident patterns, pragmatic inquiry begins by gathering empirical data such as crash reports and driver behavior studies and also engaging stakeholders (drivers, pedestrians, policy makers) to identify actionable problems. Adjusting strategies based on observed consequences ensure interventions remain flexible and context specific, for instance if a redesigned intersection reduces accidents but increases congestion, pragmatism demands revising the approach. Pragmatism rejects static one size fits all policies instead fostering collaborative, evidence based learning where knowledge is provisional and success is measured by tangible safety improvements. By integrating technology, behavioral insights and lived experiences, this approach transforms road safety into a dynamic, socially embedded practice aimed at practical life preserving outcomes.

2.7 Chapter Summary

This chapter helps to understand the base of the study. It is very important to understand and review objectives so as to keep on track with the research. This chapter also helped in understanding the challenges affecting road safety in the world and mostly in Harare. It also

exposed some knowledge gaps whereby, there is little information on Africa's road safety systems due undocumented or unreported road traffic accident cases.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter is directed on the research methodology, which includes the research design, tools used to gather data, techniques used to analyze data, sampling techniques, target populations and ethical issues considered when the study was conducted as well as the justification of the techniques that were used. The steps that must be taken and the standards that must be upheld by the researcher in order to conduct this study were exposed in this chapter.

3.2 Description of the study area

The study will be limited to Harare, which is the capital city of Zimbabwe. Harare lies in the north east of Zimbabwe tucked at the watershed plateau of two major rivers, Zambezi on the north and Limpopo on the south. The area has prime agricultural soils offering Harare opportunities for agricultural activities in addition to the dominant manufacturing sector (Masimba, 2021). Harare serves as Zimbabwe's economic hub as it contributes significantly to the country's Gross Domestic Product but due to the decline in Zimbabwe's economy the city has a large informal economy due to high unemployment rates with many residents engaged in small scale trading and illegal mining activity. Its population is ethnically diverse with a relatively high literacy rates supported by several educational institutions. Fig 3.1 shows the study area map.

3.1 Map showing the location of Harare



3.1 Map showing the location of Harare

3.3 Research Philosophy

The research was undertaken using pragmatism philosophy, the word pragmatism is originally derived from the Greek word ‘pragma’ which means action, and which is the central concept of pragmatism (Kaushik, 2019). Pragmatists philosophy holds that human actions can never be separated from the past experiences and from the beliefs that have originated from those experiences. Action is pivotal in pragmatism because pragmatists believe that the world is changed through actions, as it is in a constant state of becoming (Kaushik, 2019), thus making pragmatism philosophy significant to this study because it constructs solutions, strategies and conclusions based on experiences. It emphasizes the usefulness of practical impact of ideas and actions over abstract principles. In essence if a concept works well in action or practice, it is considered true

3.4 Research Design

This research was based on a case study addressing the issues surrounding risk reduction measures in road safety and accident prevention in Harare province. Specifically, a qualitative research design was adopted to gain in-depth insights into the perceptions and experiences of local stakeholders. It is applicable to this research because it can reveal patterns and trends that might be missed by quantitative methods. The target population includes traffic officers, local

government officials and community members with a purposive sampling technique employed to select participants who can provide relevant information. Data will be collected through semi structured interviews allowing for flexibility in exploring participants' views while ensuring that key issues are covered. Ethical considerations such as informed consent have been prioritized to protect participants' rights. Overall, this research design is important to achieving the study's objectives, facilitating a comprehensive understanding of road safety issues in Harare.

3.5 Research Approach

The study was based on a mixed method approach which is a research design that has its own philosophical assumptions to provide directions for the collection and analysis of data from multiple sources in a single study (Dawadi, 2021). The use of mixed methods enables researchers to answer research questions with sufficient depth and breadth and helps generalize findings and implications of the researched issues to the whole population. For example, the quantitative approach helps a researcher to collect the data from a large number of participants, thus increasing the possibility to generalize the findings to a wider population. The qualitative approach on the other hand provides a deeper understanding of the issue being investigated, honoring the voices of its participants (Dawadi, 2021). Therefore, using a mixed method approach in this research offers the best chance of answering research questions by combining two sets of strengths while compensating at the same time for the weakness of each method. This enabled the research to engage with the participants and gain a thorough understanding of road safety and accident prevention. This shows that this approach will permit open-minded queries that allow for debates and allow the researcher to include other queries of interest throughout the participant discussion.

3.6 Target Population

In this research, population was derived from different parts of Harare province. The researcher selected a target population of relevant knowledgeable individuals in the province such as public transport drivers, pedestrians, cyclists and traffic officers who will be important and relevant to the study and hear their views and opinions on the issues of road safety and accident prevention. A target population refers to a group of individuals that the intervention intends to conduct research in and draw conclusions from (Barnsbee, 2018).

3.7 Sampling

Sampling is defined as the act, process or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population (Mujere, 2016).

3.7.1 Sample size

A sample is a group of people, objects or items that are taken from a large population. The sample should be a representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole (Mujere, 2016). Only a subset of the target population was chosen to engage in qualitative research based on their knowledge of the phenomenon of interest. The underlying premise behind sample size is that conclusions about the entire population were reached by picking some of the elements in a population, allowing the researcher to collect data more readily. Slovin's sample size format was used to calculate the target population which is $n = N / (1 + Ne^2)$.

n = sample size

N = total population size (100)

e = margin of error 0.05

$e^2 = (0.05)^2 = 0.0025$

$n = 100 / 1 + 100 \cdot 0.0025$

$100 \cdot 0.0025 = 0.25$

$1 + 0.25 = 1.25$

$n = 100 / 1.25 = 80$

thus sample size ' n ' = 80

3.7.2 Sampling techniques

Sampling techniques are statistical or non-statistical methods for selecting a sample or representative of the whole population to study the population's characteristics (Bisht, 2023).

3.7.2.1 Purposive sampling

The study was conducted using a technique called purposive sampling, which enabled the researcher to choose the sample that will represent the study based on the purpose or opinion,

making the representative subjective. The sampling method was viewed as a means of acquiring information from certain and specific individuals that relate to the objective of the research (Crossman, 2020). As a result, the population was non-randomly chosen to fit the studies' focus on road safety and accident prevention. A subset of a larger population was studied making the method helpful because many members of the subset were simple to identify yet enumeration was difficult to accomplish. Relevant individuals in the community and car and public transport drivers significant to the study aired their opinions on road safety and accident prevention. The study focused on the TRAFFIC SAFETY COUNCIL OF ZIMBABWE(TSCZ), ZRP traffic officers.

3.8 Data collection instruments

3.8.1 In-depth and key informant interviews

On the issues of assessing risk reduction measures in road safety and accident prevention, information was collected using the mentioned tool so as to acquire knowledge based on different perspectives of the issue at hand. To design effective in depth and key informant interviews on road safety and accident prevention, the researcher focused more on a structured yet flexible interview guide and careful selection of key informants with diverse perspectives. The method adopted inclusivity as different views were taken from the accident survivors and eye witnesses. The technique required a small number of participants for a detailed interview to be conducted (Rutledge, 2020). Illegal public drivers known as “mshika shika” were very eager to provide information on most causes of accidents in and around the Harare central business district (CBD), although it was hard to administer the interview while most of them were driving, the researcher had to ensure a comfortable and private interview was established before their commuting time. The study made use of key informant interviews to obtain data from individuals like TSCZ officers, ZRP traffic officers, public transport drivers and they covered about 70% of the target population with majority of them being public transport drivers. The individuals had experience and comprehensive understanding of the wider context of the research. Utilizing in-depth and key informant interviews enhanced the quality and depth of data collected on the research. This method does not only provide a platform for diverse voices and perspectives but also fosters a deeper understanding of the complex factors influencing road safety, ultimately informing more effective policies and practices.

3.8.2 Questionnaires

A questionnaire is a research instrument consisting of series of questions for the purpose of gathering information from respondents. They can be carried out face to face, by telephone,

computer or post (McLeod, 2023). The questionnaire was designed by the researcher in a way that the questions focused more on driver behavior, road infrastructure and their views on current road safety policies or laws. It was also designed to include a mix of closed ended questions, which provides quantifiable data and open-ended questions, which allow respondents to express their views in their own words. By targeting various stakeholders including drivers, pedestrians and local authorities, the questionnaire aims to capture a comprehensive overview of current road safety measures and the effectiveness of existing accident prevention strategies. The questionnaire had 82% response rate since it was administered using online services. The use of a standardized questionnaire ensures consistency in data collection, enhances comparability and allows for easier analysis of results. Additionally, the anonymity of the questionnaire encourages honest responses thus increases the reliability of the data gathered. Ultimately the insights gathered from this method will be instrumental in identifying key issues and developing actionable recommendations to improve road safety in Harare.

3.8.3 Direct observation

Direct observation or ethnography is a qualitative method that consists in directly observing the social situation under study (Fischer, 2023). Direct observation is a valuable instrument in this study because it firsthand insights into real world behaviors and interactions within traffic environments. This method involved the researcher systematically observing and recording the actions of drivers, pedestrians and other road users in various context such as busy intersections, school zones and areas with known safety issues .by capturing data on factors such as compliance with traffic signals, use of safety gear, and risk-taking behaviors, direct observation allowed the researcher to assess the effectiveness of existing road safety measures and identify areas for improvement. Additionally, direct observation can help uncover environmental factors such as road conditions and signage effectiveness that influence safety outcomes. the data collected through this method enriched the overall understanding of road safety issues, providing a solid foundation for developing targeted interventions and enhancing accident prevention strategies.

3.9 Data analysis and presentation

The study analyzed the data using descriptive statistics for quantitative data and thematic analysis for qualitative data. Thematic analysis is a qualitative method employed in this study to analyze and present data related to road safety and accident prevention. In particular researchers acknowledge that thematic analysis is a flexible and powerful method of

systematically generating robust qualitative research findings by identifying, analyzing and reporting patterns within data (BMJ, 2023). Thematic analysis allows for a refined understanding of participants' perspectives, experiences and attitude towards road safety measures. It does not only facilitate the identification of common issues and concerns but also allows for the exploration of divergent views, providing a holistic view of complexities surrounding road safety. Descriptive statistics are specific methods basically used to calculate, describe and summarize collected research data in a logical, meaningful and efficient way (Vetter, 2017). Using this method data is reported numerically in the manuscript text or in its tables or graphs. Descriptive statistics provide a concise way to summarize and describe data, making it easier to understand complex data sets. They also help identify patterns and trends, enabling researchers and analyst to gain insight and make informed decisions.

3.10 Ethical considerations

Ethics refers to the morals, habits, standards scientific integrity and dignity which served as guidelines for a responsible conduct of research. Ethics are termed as a guide to differentiate behavior that can be approved or denied making the researcher adhere norms such as avoiding bias and distorted information (Smith, Williams, Master, Lariviere, Sugimoto, Paul-Hus & Rensik, 2020). They were set of principles the researcher followed in initiating the research and these involve voluntary participation; informed consent and confidentiality.

3.10.1 Informed consent

Informed consent is the voluntary agreement regarding a role a person will play in a research study after they are fully informed (Skidmore, 2023). Firstly, the researcher was given approval by Bindura University of Science Education (BUSE) to conduct research on enhancing road safety and mitigating road accidents. The researcher then had approval from the Harare Metropolitan offices to be able to conduct the research in the city. Due to the use of voluntary participation the participants were given a clear and comprehensive understanding about the research objectives, procedures, potential risks and benefits associated with participation. This includes explaining how the data will be used to develop strategies aimed at improving road safety and preventing accidents. Prioritizing informed consent helps build trust between researchers and participants laying a solid foundation for effective collaboration in pursuit of safer road environments.

3.10.2 Confidentiality

Any information relating to the private sphere of a person that they wish not to be shared with others is considered confidential. The right of research participants to not disclose certain

information and to retain control over their privacy has increasingly been acknowledged inside and outside of academia and has become subject to extensive legislation (Bos, 2020). The participants were able to share their honest and candid insights after knowing that their identities and responses will be kept confidential. By prioritizing confidentiality, the researcher was able to create a safe environment for participants, resulting in more meaningful and impactful research outcomes.

3.10.3 Minimizing harm

The researcher was well aware of the potential psychological, emotional and physical impacts that discussing road safety issues may have on the participants, particularly those who have experienced traumatic incidents such as car accidents. To mitigate these risks, the researcher implemented strategies that prioritize participant wellbeing such as providing clear information about the purpose of the study. Minimization of harm allows researchers to not only uphold ethical standards but also create a more supportive environment that encourages open dialogue and honest participation which contributes to the development of effective road safety strategies.

3.11 Chapter summary

The chapter gave a detailed explanation of the research methodology which is important in the study. The research focused on people involved in the study, sample processes and research instruments and the data collection procedures. The data collection methods used by the researcher are to give the best possible, quality and accurate information on strategies for enhancing road safety and mitigating road traffic accidents in Harare Metropolitan Province.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter focuses on presenting, analyzing and discussing of findings and data gathered on the study of enhancing road and mitigating road traffic accidents. The data was collected from the target population which includes drivers, pedestrians and law enforcers. Majority of the information was obtained from key informants such as public transport drivers and traffic cops.

4.2 Response rate

The study collected most of its findings from its respondents using questionnaires with regards to finding ways to enhance road safety issues and understanding the causes of the high rise in road traffic accident. Figure 4.1 summarizes the questionnaire response rate.

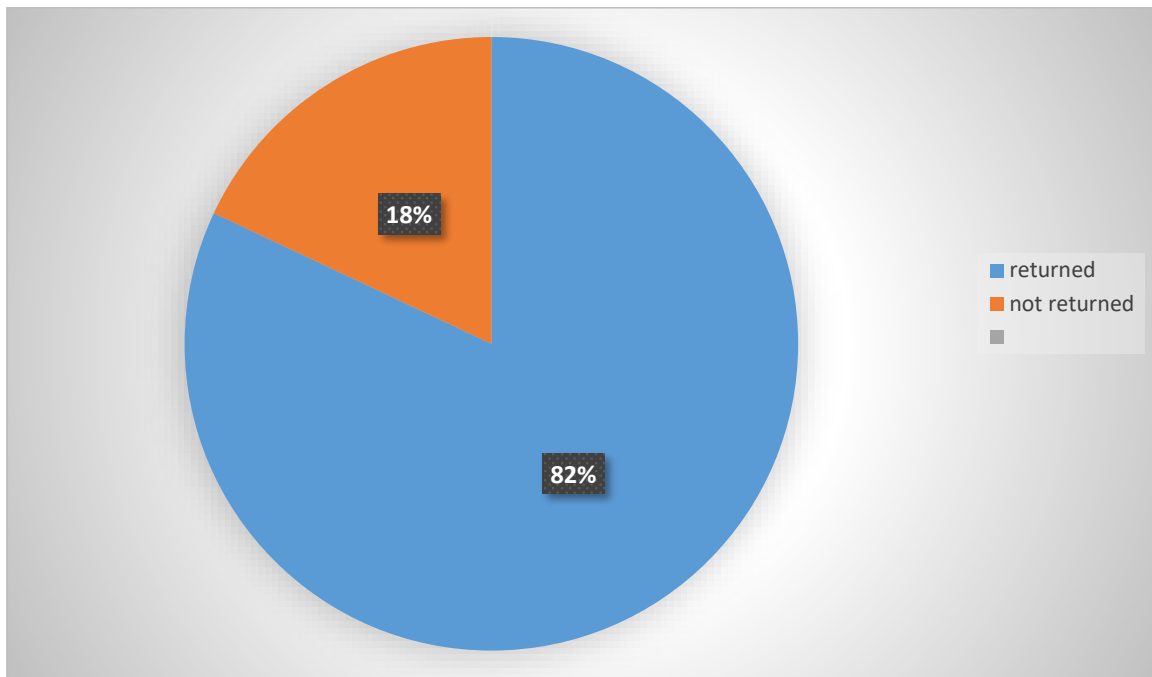


Fig 4.1 Questionnaire response rate

Out of the 50 questionnaires administered to the study sample only 41 were correctly answered and responded to as the researcher intended. The questionnaire had an excellent response rate of 82% and therefore the study continued with the correctly filled questionnaires for analysis.

4.3 Factors contributing to the current road traffic accidents (RTA) in Harare.

The information acquired through our data collections instruments helped to pinpoint the most common factors contributing to current road traffic accidents in Harare metropolitan.

4.3.1 Human errors

The information extracted from the participants show that human errors are a common factor in contributing the current road traffic accident trends. Participants voiced out errors such as speeding, failure to observe traffic laws, driving under the influence of drugs or alcohol and also distracted driving.

We have targets to reach on a daily basis, so that is mostly why speeding is a common occurrence among us public transport drivers. While some of us might have a target of sixty to eighty dollars, others have a target of one hundred to one hundred and twenty dollars per day. So that's why you see or hear about speeding issues especially during pick hours because that when most people be going to and from work, so it's mostly a matter of working under pressure for some and for others it is for fun and thrill. (driver B)

There has a been a lot of fake driver's license scams around Harare and apparently some people have fake driver's licenses and these are the culprits most likely to disobey traffic laws because they did not go through the proper procedure to acquire their licenses. I do not have the exact statistics but out of five accidents three are most likely to be caused by not adhering to traffic laws. That is the reason why every now and then we have officers who create road blocks just to educate drivers on the importance of observing traffic laws because this issue concerns even those without fake licenses. (ZRP officer A)

Key informant:

Many of these drivers have become vulnerable to drug use as a result of peer pressure, depression and various other reasons, and as a result the rate of drivers driving under the influence has increased and these drivers are highly prone to road accidents. Some drivers use their cellphones to text or call whilst driving which highly causes distracted driving. (TSCZ officer)

4.3.2 Poor road infrastructure

The information exposed how poor road infrastructure can be a contributing factor to road traffic accidents. Participants reflect that the roads in the city play a role in road traffic accidents.

My first experience with road accidents was due to poor roads, I was driving out of the CBD at night visiting a friend in Manresa park when I went through a large pothole and the car veered off the road and hit a tree. A lot of my colleagues have complained about potholes and bad roads especially when a driving at night because you have to dim your lights so as to not blind other drivers. (Car driver A)

Most high density areas have bad roads, and its mainly because most of these roads have not been maintained in over two decades. Some of these roads are too narrow and often result in collision. (Pedestrian C)

I think that poor road infrastructure such as dead traffic lights also causes road accidents because most of the street lights within the city are not working

, especially outside the CBD. This has caused a lot of head on collisions take for example Warren park traffic lights and Mabvuku turn off which have recorded quite a number of collisions on those junctions. (Pedestrian A)

Key informant:

This computerized and internet era has resulted in a number of accidents because some drivers record themselves while engaging with others on social platforms and fail to concentrate on the road hence hitting rocks and potholes absent mindedly, some even hitting pedestrians. (ZRP officer C)

The reason why drivers have route permits is that they allow a driver to only stick to one route, that way he gets more knowledge on the road that even if it's a night there's no unexpected bumps. It is not a solution to the poor road infrastructure but rather a way to cope with the current road networks whilst the responsible ministry works on maintaining these roads. (TSCZ officer)

The roads are too narrow and especially around blind curves, so the possibility of colliding with another car are very high. (Driver D)

In the year 2024 the Traffic Safety Council of Zimbabwe reported 52,282 total road traffic crashes, 2,015 total number of fatalities and 10,073 total number of injuries in the country (TSCZ, 2025). These crashes and injuries are a result of many of the contributing factors of road traffic accidents. Harare on its own is responsible for about a third of these crashes. The figure below shows the factors contributing to road traffic accidents.

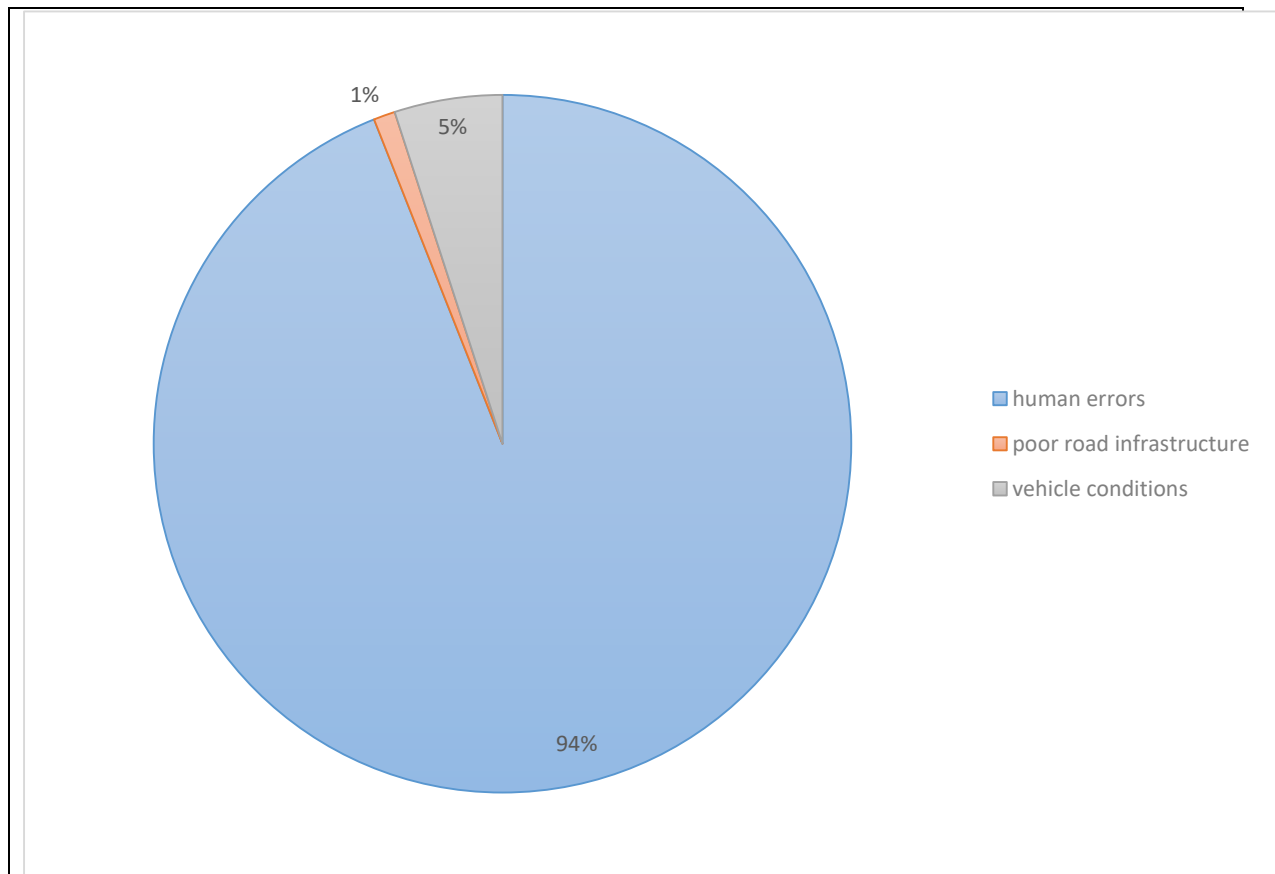


Fig 4.2 factors contributing to RTA

According to TSCZ, Harare city has the highest number of crashes with most of the victims being mainly passengers and pedestrians, research in 2018 says that approximately 94% of the crashes in 2017 were due to human error and the remainder due to vehicle conditions (5%) and road environment (1%) (UN, 2021). Statistics claim that most road traffic accidents are a direct result of human error, the Zimbabwe Statistics Agency noted that widespread disregard for rules coupled with lack of competency by motorists' fuel chaos and traffic offences on the country's roads (The Herald, 2016). The results in the figure show that there is need for policy makers to concentrate more on formulating and implementing laws to reduce human errors such as traffic cameras, breathalyzers and radar speed guns.

4.4 Effectiveness of existing strategies for enhancing road safety and mitigating road traffic accidents in Harare

On this objective, the researcher got much useful information from the target population through questionnaires and direct observation which worked best in accumulating the effectiveness of the existing strategies for road safety. Zimbabwe's framework for road safety management is comprehensive, functional and well established and is a significant strength to deliver on the required strategic objectives and KPIs of pillars one to five. However, the framework's main weakness is that it is outdated and in need of updates benchmarked to international standards and good practices, particularly of the United Nations conventions on road safety, the African Road Safety Charter, and regional SADC/SATCC (UN, 2021). The notorious kombi crews are the worst offenders with a whole litany of bad driving now being accepted as normal for them. They are even aggressive towards drivers who refuse to be bullied into acceding to their illegal maneuvers (Fossil Contracting, 2022).

This shows that the existing strategies are failing to control driver behavior on the road hence there is need to educate drivers on why courtesy on the road means everyone gets to their destination faster and this should be supported by effective policing and prosecution of bad driving. Major excruciating jams in Harare are often caused by haulage trucks broken down on T-junctions and even roundabout circles, and quite a number of drivers seem to think that whatever spot their breaks down becomes a repair shop, this behavior is not tolerated in countries with effective traffic systems. This shows that the existing strategies are ineffective in ensuring that drivers move their cars to the road verges as soon as possible to avoid disturbing the traffic flow.

Overall, the existing strategies for enhancing road safety and mitigating road accident in Zimbabwe are effective to a lesser extent, especially when compared to global standards. The country itself has not achieved the United Nations Sustainable Development Goal target of reducing road crash deaths and injuries by 50% by 2020, it has been 4 years after 2020 and still the target has not been reached either.

4.5 To assess the challenges faced towards enhancing road safety and mitigating road traffic accidents in Harare

There are quite a number of challenges that we are facing at the moment in trying to enhance road safety, some of these challenges include, financial issues, unlicensed drivers and vehicles. The unlicensed matter is quite a big one around the kombi community and

which is why we have traffic officers in the CBD and local roads to get rid of these unlicensed vehicles and drivers. (ZRP officer)

Enhancing road safety in Harare faces quite a number of significant challenges which include, road infrastructure issues, corruption, lack of political commitment, driver behavior, inadequate enforcement, vehicle maintenance and poor data collection. Corruption within regulatory and law enforcement agencies perpetuates non-compliance with traffic laws as bribery allows offenders to evade penalties fostering a culture of impunity. This dysfunction is exacerbated by inadequate oversight and resource misallocation, diverting funds meant for infrastructure upgrades or public awareness campaigns. Concurrently the absence of sustained political will has stalled the prioritization of road safety reforms. Despite Harare's alarming rates of traffic accidents authorities have inconsistently enforced existing regulations and underfunded critical initiatives, reflecting a broader pattern of neglect in urban governance.

Moving on driver behavior and infrastructure deficiencies both contribute to high accident rates within the city. The researcher made developed some questions to capture information about driver behavior using interviews. Results indicated that the human error in particular, speeding and driving through red robots, distracted driving is a major cause of traffic crashes within Harare. The interviews also reviewed that young drivers under the age of thirty and without relevant driving experience and knowledge are more likely to commit human error for example in march 2020 two school children in Riddle ridge were hit and killed on the spot by a 19-year-old new driver who had just gotten his license earlier that year (ZimEye, 2020). Also Harare's deteriorating road infrastructure marked by potholes, inadequate signage and poorly maintained intersections creates hazardous conditions for motorists and pedestrians alike and addressing driver behavior and infrastructure deficiencies requires not only stricter enforcement of traffic laws but also sustained investment in infrastructure modernization to align with Harare's urban mobility demands.

Road safety issues in the area are further impeded by widespread poor vehicle maintenance and inadequate enforcement of traffic regulations and laws which collectively exacerbate accident risks. In Harare a lack of proper vehicle maintenance is a relatively common cause of car accidents. When a car is not properly maintained, essential parts of the vehicle can malfunction or fail altogether. Early 2025 traffic officers took possession of over 100 cars that were not serviced, insured, licensed and also if the driver did not have the necessary requirements needed to drive public transportation, this was done so as to encourage or

motivate drivers to acquire or the necessary documents as well as maintain their vehicles. These issues of are often overlooked due to inadequate enforcement of traffic laws and regulations where under resourced traffic officers and systemic corruption enable repeat offenders to evade penalties.

4.6 To propose a sustainable solution-based road safety strategy for enhancing road safety and mitigating road traffic accidents in Harare

Key informant:

The current rise in road traffic crashes requires new solution and as you have mentioned sustainability, we are also looking to adapt more sustainable solutions into the current road safety systems such as that commuter omnibuses should have ranks outside the CBD for example the Copacabana rank can be moved to the space behind Rainbow towers hotel and will do the same with other ranks. This will reduce traffic jams as well as crashes resulting from those jams.

The first sustainable solution based strategy that can be adopted into the current system in Harare is strengthening governance frameworks, this includes establishing independent road safety authority with clear mandates to oversee policy implementation, coordinate stakeholders and enforce accountability. Good governance is central to the nuts and bolts of road safety. Shared responsibility is the essence of the safe system approach to road injury prevention and sharing requires adherence to principles of good governance (UN, 2017). Such a body could reduce corruption by introducing transparent monitoring systems, such as digital platforms for reporting traffic violations and tracking vehicle inspections.

Secondly, another sustainable solution is promoting good driver behaviors which requires sustained public education campaigns and stricter licensing protocols. Over 90% of road crashes are caused by undesirable driver behavior such as alcohol consumption, harsh breaking and speeding which is why promoting good driver behavior is essential in Harare. The first step to promoting this is ban all drivers without valid defensive driving licenses on the road, also partnering with schools and media houses to disseminate road safety messages coupled with mandatory refresher courses for public transport drivers can instill a culture of compliance.

Lastly the city can benefit from investing in safe infrastructure and enhancing vehicle safety standards. Prioritizing road redesign such as widening pedestrian walkways, installing speed calming measures and creating dedicated cycling lanes, this can reduce conflict between

vehicles and vulnerable road users. The government's commitment to infrastructure development, as evidenced by initiatives like the Emergency Road Rehabilitation Program is a step in the right direction. Public private partnerships offer another avenue for mobilizing resources and expertise to improve road infrastructure. Also technological advancements also present opportunities for innovation. The adoption of smart road technologies can enhance traffic management and safety, furthermore the use of sustainable materials can reduce environmental impact (Matarise, 2025).

In addition to the above there is an urgent need to ensure that vehicles must be well maintained with good breaks, lighting, tires etc. Edwards (2017) argues that this will go a long way in reducing accidents in these roads thereby saving lives and reduce insurance payments due to recklessness on the part of drivers (Foya, 2019). Implementing annual mandatory roadworthiness tests, supported by mobile inspection units and penalties for non-compliance can phase out unsafe vehicles.

4.7 Chapter summary

The chapter expressed the outcomes found within enhancing road safety and mitigating road traffic accidents in Harare. Some of the results were analyzed guided by the central sub themes that formed from the questionnaire responses as well as interviews. The information analyzed in a pragmatic so as to better understand the different experiences and perspectives from the target population.

CHAPTER FIVE

SUMMARY/CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter will give a summary, conclusions together with the recommendations involved in the study. The chapter summarizes and concludes on the themes and sub-themes that are within the research objectives. The chapter also consists of the recommendations that were found within the study outcomes or findings.

5.2 Summary of key findings

The research highlighted that systemic corruption, inadequate funding and inconsistent political commitment undermine effective policy implementation. For instance, the research revealed that under- resourced law enforcement agencies in Harare struggle to penalize traffic violations with only 12% of offenses resulting in fines, fostering a culture of freedom from punishment. Issues of corruption further exacerbates this matter as bribes often allow vehicles that are not road worthy to evade inspections or traffic fines. The absence of a centralized road safety authority compounds these challenges leading to poor coordination between transport planners police and health sectors. WHO states that countries with independent road safety agencies, transparent accountability mechanisms and digitalized enforcement systems reports significantly low accident rates (WHO, 2018).

Deteriorating road conditions in the city such as potholes, poorly designed intersections and inadequate signage create hazardous environments for motorists and pedestrians. Retrofitting high risk corridors with speed bumps, pedestrian crossings and dedicated cycling lanes has been shown to reduce collisions. Concurrently the prevalence of poorly maintained vehicles, particularly in the informal public transport sector heightens risks. For example, commuter omnibuses (kombis) often operate with faulty brakes or bald tires due to lax inspection regimes.

Addressing these issues requires sustained investment in infrastructure upgrades, stricter vehicle road- worthiness standards, and leveraging technology for inspections.

The research attributes issues of reckless driver behavior to insufficient driver education, weak enforcement and a profit driven informal transport culture. For instance, Harare's informal operators often prioritize passenger turnover over safety thus leading to overloading and reckless maneuvers. Public education campaigns such as Rwanda's motorcycle driver licensing initiative have proven effective in fostering safer practices. Community engagement is equally critical because it involves local leaders and youth groups in advocacy campaigns helps shift social norms and encourages collective responsibility. A holistic approach combining behavioral change, community participation and data analytics is essential to create a sustainable road safety culture in Harare.

5.3 Conclusion

The conclusion is based on research findings. the study concluded that they are quite a number of causes of traffic crashes which includes driver behavior, corruption and also infrastructure deficiencies. It is quite easy to find solutions to these causes but challenges such as financial constraints, bribery etc. prove to hinder the effectiveness of the solution but by introducing strict traffic regulations, resourceful law enforcers and also using current technologies such as traffic cameras and radar guns can help minimize the rate at which these causes are leading to road crashes. Also issues such as corruption and inadequate enforcement must be tackled through institutional reforms, including the establishment of independent oversight bodies and technology driven enforcement mechanisms.

Simultaneously prioritizing infrastructure modernization such as pedestrian friendly designs and climate resilient roads alongside stringent vehicle maintenance standards can mitigate physical risks. Equally important is developing a cultural shift through active community participation, targeted educational campaigns and data driven interventions that address driver behavior and prioritize vulnerable road users. By integrating these strategies, Harare can break the cycle of neglect, reduce traffic fatalities and injuries thus creating a safer more sustainable urban mobility ecosystem.

In addition to the above the above initiatives for enhancing road safety offer a comprehensive and sustainable approach to reducing accidents, improving traffic flow and promoting more efficient and effective use of road infrastructure. These initiatives such as introducing traffic

cameras and radar guns require funding, expertise and by implementing them we can build a more efficient and more sustainable road system that supports the needs of all road users.

5.4 Recommendations

The researcher would like to make recommendations based on this study's outcomes:

1. There should be systems or regulations that ensures that fines are properly paid and not pocketed by corrupt traffic officers. Police officers should receive training on annually on the impact of road crashes on society and public health so that they may have a better appreciation of why enforcing traffic laws is important. They should also have access to the technical equipment mentioned in the research such as breathalyzers, radar guns and patrol cars or motorcycles.
2. Civil societies, communities and individuals should encourage governments to make the roads safe for all road users. In addition, these groups should assist in planning safe and efficient transport systems that accommodate drivers as well as vulnerable road users such as pedestrians and cyclists. These civil societies must encourage enforcement of traffic safety laws and regulations as well as campaign for firm and swift punishment for traffic offenders.
3. Current driving tests methods and policies should be reviewed so as to adopt new ways that allows the driver to be tested on night driving, rainy season driving, highway driving and the social interaction with other drivers as well as the pedestrians. A simple 30 minutes or 1hour driving tests is not comprehensive. Defensive driving should also be part of the tests and should be always accompany the driver's license.
4. there is need to prepare a national road safety strategy and plan of action in Zimbabwe and it should be multi-sectoral involving agencies concerned with transport, health, education, law enforcement and other relevant sectors and multidisciplinary involving road safety scientists, engineers, urban and regional planners, health professional and

others. The strategy should take the needs of all road users into account, particularly vulnerable road users and should be linked to strategies in other sectors.

5. Driver educational programs should be done regularly to improve safety behaviors and reduce driver errors. programs can be given to individuals or groups or can be targeted to high risk groups such as older people and novice drivers. The researcher noted from the responses that driver educational programs can improve driving performance and knowledge as well as awareness of driving hazards

6. it is recommended that installation of cameras at intersections can limit speeding cars from violating red traffic light at intersections. Red light camera installation can be a sustainable measure because the camera can be a permanent component of transportation infrastructure. this intervention can be expensive in the country but can go a long way in reducing accidents that take place as a result of crossing red robots.

5.5 Chapter summary

The chapter focused on the results that emanated from this study as well as the findings and solution to the statement problem of the research. It also laid out some recommendations that can be adapted into the current road safety strategies so as to reduce the high rise in road traffic accident statistics. It also gives a clear summary of the key findings of this research.

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<https://doi.org/10.1002/hsr2.1240>

APPENDIX

Appendix A: Questionnaire Guide

1 what are the factors contributing to the current road traffic accident (RTA) trends in Harare.

(tick all applicable)

Human errors eg speedind, drunk driving, inexperience etc.	
Poor road infrastructure eg potholes, unclear traafic signs etc.	
Vehicle conditions eg faulty brakes and other mechanical issues	

- 1 Explain in detail the causes of current road traffic accidents according to your knowledge
- 2 How effective are existing strategies for enhancing road safety and mitigating road traffic accidents in Harare. (tick in scale rating)

(1= very weak, 2= weak, 3= neutral, 4= effective, 5= very effective)

Current strategies:	1	2	3	4	5
Speed bumps					
Traffic lights and signage					
Vehicle and driver licensing					
Road rehabilitation					
Road blocks eg road safety awareness, licensing and insurance checks, vehicle road worthy checks					

- 3 Asses the challenges faced towards enhancing road safety and mitigating road traffic accidents in Harare.(tick in scale rating) (1= very weak and 5= very effectice)

Challenge:	1	2	3	4	5
Road infrastructure issues					
corruption					
Lack of political commitment					
Driver behavior					
Inadequate enforcement					
Poor vehicle maintenance					
Poor data collection					

- 4 What sustainable solutions or trategies can you propose for enhancing road safety and mitigating road traffic accidents in Harare and why.

Appendix B: Interview guide

My name is Matilda S Manyanga B193081B a final year student at Bindura University of Science Education. I am carrying out a research entitled examining strategies for enhancing road safety and mitigating road traffic accidents in Harare Metropolitan Province. I kindly ask for your participation in the interview questions that I am going to engage you in. The interview will not take more than 30 minutes and it is part of the data collection instruments relevant to this study. Your participation in this interview is completely voluntary and your responses will remain confidential and anonymous. You may choose to excuse yourself at any time during the interview and your participation is greatly appreciated.

What are the factors contributing to road traffic accident (RTA) trends in Harare?

How effective are existing strategies for enhancing road safety and in mitigating road traffic accidents in Harare?

What are the major setbacks in current road safety legislation and enforcement hindering the mitigation of road traffic accidents in Harare?

What are the challenges faced in enhancing strategies for road safety and mitigating road traffic accidents in Harare?

How can sustainable development be engaged in enhancing road safety strategies effectively?

What sustainable solution-based practices can be adapted to improve and enhance strategies for road safety and mitigate road traffic accidents in Harare?

Appendix C: Direct observation

To study driver behavior.

To study and analyze accidents hotspots and what they have in common.

To assess the relationship between drivers and traffic law enforcers.

To understand the common causes of road traffic accidents.

Appendix D: Approval letter from the City of Harare



CITY OF HARARE

HUMAN CAPITAL DEPARTMENT
TOWN HOUSE, HARARE, ZIMBABWE
POST OFFICE BOX 990
TELEPHONE 752979 / 753000

EMAIL: hrd@hararecity.co.zw

ADDRESS ALL CORRESPONDENCE TO HUMAN CAPITAL DIRECTOR

Bindura University of Science Education
P. Bag 1020

Bindura

12 May 2025

RE: AUTHORITY TO UNDERTAKE RESEARCH: MATILDA S. MANYANGA

This letter serves as authority for Matilda Manyanga to undertake a research survey on the topic: "EXAMINING STRATEGIES FOR ENHANCING ROAD SAFETY AND MITIGATING ROAD TRAFFIC ACCIDENTS IN HARARE METROPOLITAN PROVINCE."

The City of Harare has no financial obligation and neither shall it render any further assistance in the conduct of the research. The researcher is however requested to avail a soft and hard copy of the research to the undersigned so that residents of Harare can benefit out of it. The research should not be used for any other purpose other than the study purpose specified.

This letter is issued upon payment of \$usd administration fee.
Receipt number: 15272624

Yours faithfully

MR J. DUVE
ACTING HUMAN CAPITAL DIRECTOR



Harare to achieve a WORLD CLASS CITY STATUS by 2025

Appendix E: Approval letter from department

SUSTAINABLE DEVELOPMENT DEPARTMENT



BINDURA, ZIMBABWE
WhatsApp : +263773281212
E-mail: jboworaa@buse.ac.zw

BINDURA UNIVERSITY OF SCIENCE EDUCATION

CHAIRPERSON'S OFFICE

Monday 14 April 2025

TO WHO IT MAY CONCERN

Dear Sir or Madam

RE: RESEARCH SUPPORT LETTER FOR SUSTAINABLE DEVELOPMENT STUDENT

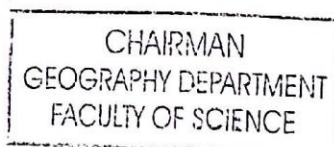
I am writing on behalf of the Sustainable Development Department requesting your collaboration on the research of our fourth-year student, **MATILDA SHARMINE MANYANGA REGISTRATION NUMBER B193081B**. The student is studying for a 4-year Bachelor of Science (Honours) Degree in Development Studies (HBSc.DG).

In the fourth year of study, students are required to do field research which require them to do their data collection for research purposes.

We will be highly obliged to furnish you with additional information about industrial arrangements and procedures, if our request is considered.

Kindly accord her the due cooperation she truly deserves.

Yours faithfully,



DR. J. BOWORA (CHAIRPERSON)
SUSTAINABLE DEVELOPMENT DEPARTMENT

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matilda manyanga research

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