

**THE CONTRIBUTION OF TWEDDEKO ROAD SAFETY CAMPAIGN IN
REDUCING ROAD ACCIDENTS IN KAMPALA METROPOLITAN AREA IN
UGANDA :A CASE OF TWEDDEKO CAMPAIGN IN KAMPALA METROPOLITAN
AREA**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF JOURNALISM, MEDIA, AND
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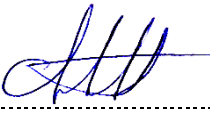


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Declaration

I, Frederick David Senkeeto declare that the work submitted in this research report is original and as far as I am aware it has never been submitted to any other university or similar institution of higher learning for the award of a master's degree or any other academic award.

Signature: 

Date: 23/7/2025

Approval

This research report titled; —*The contribution of Tweddeko road safety campaign in reducing accidents in Kampala metropolitan area in Uganda*” has been authorized to be submitted for examination with my approval as university supervisor.

Supervisor’s Name: Professor James Kiwanuka-Tondo (PhD)



Signature:

Date:21/07/25.....

Dedication

I dedicate this dissertation to my dear parents; Rev. Canon Albert Samuel Senkeeto and Mrs. Proscovia Margaret Senkeeto, for being there for me in my entire academic life financially with encouragement, prayers, I truly have a jewel with you, and I pray that the good Lord blesses you with a long life. To my son Samuel Mulungi Kiyingi Senkeeto for your immeasurable love, care, patience and support for me during the course. May the Lord bless you abundantly.

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List of abbreviations and acronyms

CVI	-	Content Validity Index
GDP	-	Gross Domestic Product
GNP	-	Gross National Product
NRSC	-	National Road Safety Council
UPF	-	Uganda Police Force
RTAs	-	Road Traffic Accidents
SPSS	-	Package for Social Sciences
SUMATRA	-	Surface and Marine Regulatory Authority
WHO	-	World Health Organization
OECD	-	Organization of Economic Cooperation and Development
AIDS	-	Acquired Immuno Deficiency Syndrome
HIV	-	Human Immunodeficiency Virus
MOH	-	Ministry Of Health
TRA	-	Theory of Reasoned Action

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Abstract

The purpose of this study was to analyze the contribution of the Tweddeko road safety media campaign in reducing road traffic accidents in the Kampala metropolitan area. The study was grounded in Fishbein and Ajzen's (1975) theory of reasoned action, which proposes that a person's behavioral intention determines the likelihood of performing a specific behavior. A cross-sectional survey research design based on a quantitative approach was used. Questionnaires were administered to the population, and a sample size of 52 respondents participated in the study. Key findings include the following: Regarding the effectiveness of road safety media campaigns and measures in the Tweddeko campaign in Kampala metropolitan area, respondents noted that most evaluations focus on the combined effect of several campaign elements and rarely isolate the role of the mass media component alone, especially the Tweddeko campaign, in improving and reducing traffic accidents. Concerning the relationship between the increased number of vehicles and road traffic accidents in Kampala metropolitan area, findings revealed that the increase in the number of vehicles on the road has led to an upward shift in road traffic accidents. Additionally, road users have not benefited from the Tweddeko road safety campaign, as there has been an increase in road traffic accidents associated with deaths and injuries in the Kampala metropolitan area. Finally, this study offers empirical insights for policymakers, road users, and other stakeholders on how road safety campaigns can be effectively managed to reduce road traffic accidents in Uganda.

Chapter one

Introduction

1.0 Introduction

It is common knowledge that road transport is very crucial for the movement of goods and people which marks the backbone of the economy and sustainable development (Thacker, Adshead, Fay, Hallegatte, Harvey, Meller & Hall, 2019). However as important as it is, the system has always been accompanied by a good deal of catastrophe emanating from tragic road accidents, which have been increasing year after year. Millions of people are reported dead and other millions injuries because of road traffic accidents. Its associated consequences are ranging from social and economic; it affects individual, families and the country. Road safety remains of concern in Uganda since roads remain the major means of transport (Kareem, 2003).

In addition, road transport accounts for over 90% of cargo freight and passenger movement, and the transport sector contributes 2.8% to total gross domestic product (GDP) (MOWT, 2018). Road safety statistics put Uganda as the topmost country with unsafe use of roads in East Africa. In Uganda, it is estimated that 10 deaths per day are recorded due to road traffic crashes and this is the highest fatality rate in East Africa (UPF, 2016). The current study analyzes the effects of road safety measures in reducing road traffic accidents. This chapter presents the background to the study, statement of the problem, general objective, specific objectives, research questions, scope, significance of the study, organisation of the study and definition of key terms.

1.1 Background to the study

It is evident globally that road safety is a very old problem in the world (Esbester & Wetmore, 2015). Downing and Jacobs (2000) noted that, in Great Britain, for example, there were over 1,000 deaths a year even before the advent of the motor car. By 1970 this figure had reached 7,500, with over a third of a million people being injured. In 1974, in those countries of Europe making returns of road accidents to the United Nations, 90,000-persons were killed and 1,800,000 injured by motor vehicles. In the same year in the United States over 55,000 were killed (Kesalkar & Motghare, 2012).

According to Kesalkar & Motghare (2012), despite the enormity of these figures, road deaths and injuries seem to have very little impact on the general public's behaviour / perception. For some time, comfort was taken, in most European countries, in the fact that the accident rate per vehicle- kilometer travelled had been decreasing and it was conveniently forgotten that the absolute numbers of accidents and the economic cost to the community were rising steadily. The facts presented above are similar to what is happening in developing countries (Feder, Just & Zilberman, 1985). It is noted that there is an increase in road traffic accidents which associated to death and injuries (Yee, Cameron & Bailey, 2006).

Road safety mass media campaigns are more successful in conveying information and changing attitudes rather than directly altering driver behaviour (Donovan et al., 1999; Rodriguez et al., 2002). It should not be expected that road safety advertising will directly change behaviour, but it may be useful for agenda setting (i.e., changing social norms) or helping to form beliefs or reinforce existing ones. For example, the 'speeding (Wundersitz, Hutchinson & Woolley, 2010). No one thinks big of you' campaign developed by the RTA in New South Wales was designed to create social disapproval of speeding (Watsford, 2008). The researchers evaluating the 'Foolspeed' campaign from Scotland acknowledged the limitations of mass media advertising as a means of stimulating behavioural change and were satisfied

with the campaign achieving a change in attitudes toward speeding and in affective beliefs (the emotional benefits of speeding) (Stead & Eadie, 2007).

Studies from the US have considered the relationship between money spent on campaigns (a pseudo measure of intensity) and campaign effectiveness (Hutchinson & Wundersitz, 2011). Brijs, Daniels, Brijs & Wets, (2011) compared enforcement and publicity campaigns encouraging seat belt use at night in three different African countries. The type and amount of enforcement and media in each country varied and was tailored to the country. The study is further complicated by the fact that each country had different seat belt laws (i.e. primary, secondary). The campaign consisted of four waves and the amount spent on media varied between waves with the greatest amount of dollars spent on wave 1 (to capture attention) and the smallest amount spent on lower cost media in wave Wundersitz & Hutchinson (2009) concluded: “Results from this study showed little or no consistent relationship between amount of dollars spent on paid media and awareness, risk perception or change in belt use behaviour” (Pp.119-186). Wundersitz, Hutchinson & Woolley (2010) acknowledge the increasing use of websites to deliver road safety messages, particularly to reach younger target audiences. Websites are often central in campaigns that focus on ‘edutainment’, incorporating information, games and videos in a way that is not possible through other media (Rice & Atkin, 2009).

Billboards, posters and television are then used to promote the website (Roux, & Van der Waldt, 2016). Many of the reviewed campaigns used multiple forms of media to promote their message amongst the target group anti-speeding campaign, (Elder, Shults, Sleet, Nichols, Thompson, Rajab & Task Force on community preventive services, 2004). While websites provide new and creative ways of reaching the target audience, evaluations of its effectiveness are not widely available.

All the same, this shows that road safety is a serious problem all over the world; its severity is more pronounced in the developing countries, especially in Africa (World Health Organization, 2015). Uganda is no exception in this regard (Altinyelken, 2010). The Uganda road safety policy (2009) reports that road accidents are on the increase; at the same time, vehicle registration is also on the increase. The government of Uganda has made a commitment to tackle the road safety problem by developing and implementing a comprehensive road safety program (Mittal, 2008). However, despite this commitment by the government, the frequency of accidents over the past ten years has increased as noted by Derlet and Richards (2000). The cost of road accidents in Uganda has recently been estimated at Ushs.20 billion annually OPUA (2020). Overloading on the major highways is estimated at 20-25% hence being one of the causes of undue damage to the road pavement (Sharma, Sitaramanjaneyuiu & Wright Kanchan, 1995). According to the Uganda road safety report (2009), the average growth in the years 1998-2007 was 10%, registered vehicles as of December, 2005 were 231,197 nation-wide, while in December, 2006 and December, 2007 registered vehicles stood at 311,712 and 382,152 respectively. Out of the vehicles registered as of December, 2007, commercial vehicles, which include both passenger and freight vehicles, were estimated at 295,558 (passenger vehicles numbered 199,021 and freight vehicles numbered 96,537).

The 'Tweddeko' campaign is a road safety media campaign launched by Vivo energy Uganda, together with Uganda traffic police, NTV Uganda, Uganda road safety council, and Red Cross Uganda in 2017. The campaign that involved electronic adverts and others has been ongoing in cycles ever since (Management report, 2018). The Tweddeko road safety program has been instrumental in the development of road safety advertising in Kampala metropolitan (World Health Organization, 2015). The program, commencing in the late 2010 represented a fundamental shift away from the existing road safety advertising programs towards a more systematic approach (World Health Organization, 2015). Funding for the program was

dramatically increased, which in turn led to a greater public profile, improved quality of advertisements and an increasing role as a support mechanism for enforcement operations (Delaney, Lough, Whelan & Cameron, 2004). Grey advertising has continued to act as TAC's advertising agency, developing advertisements with additional road safety themes to drink-driving and speeding (Donovan, Jalleh & Henley, 1999). Television continues to be the major component of the Tweddeko media campaign and budget. The purpose of this study therefore is to analyse the effectiveness of road safety media campaigns in reducing road traffic accidents in Uganda.

1.2 Statement of the problem

In Uganda, road traffic accidents (RTAs) are ranked among the top ten causes of mortality for all ages alongside malaria, respiratory infection, anemia, meningitis, tuberculosis and HIV/AIDS, to mention but a few (MOH, 2013). Road safety remains of concern in Uganda since roads remain the major means of transport (Nduhura, Mulindwa, Alinda, Wanume & Settumba, 2020). In addition, road transport accounts for over 90% of cargo freight and passenger movement, and the transport sector contributes 2.8% to total gross domestic product (GDP) (MOWT, 2018). Road safety statistics put Uganda as the topmost country with unsafe use of roads in East Africa. In Uganda, it is estimated that 10 deaths per day are recorded due to road traffic crashes and this is the highest fatality rate in East Africa (UPF, 2016).

In an effort to enhance road safety, the government of Uganda through the Ministry of Works took significant steps to institutionalize a robust regulatory transport framework whose implementation, however, leaves a lot to be desired (White & Walker, 2002). Among the initiatives which face implementation gaps are: The national road safety policy, the driver testing regulations of 2012, the drivers instructors' curricula of 2004, the driver examiner training programmes of 2008, motorcycle, PSV and HGV curricula and manuals of 2014, the

lower primary (P.1-P.4) road safety education curriculum of 2003, the mandatory third party motor vehicle insurance scheme, the technical inspection of all motor vehicles, the RCDS programme (NCDC, 2014). Though challenges in institutional implementation have been identified to compromise road safety in Uganda, the road safety problem is yet to be clearly understood particularly with regard to the critical gaps in implementation of the initiatives characterizing a robust road safety framework (Odonkor, Mitsotsou-Makanga & Dei, 2020).

Despite the existence of institutional structures and a regulatory framework for road safety, implementation remains beset with challenges.

Therefore, this shows there is a problem in communication strategies which needs to be addressed and it is the researcher's interest to study the contribution of road safety media campaign measures on safety awareness using the Tweddeko campaign in Kampala metropolitan area in Uganda.

1.3 Objectives of the study

The study was guided by the following specific objectives;

1.3.1 General objective

The main objective of the study was to examine the effectiveness of the Tweddeko road safety media campaign on reducing road traffic accidents in Kampala metropolitan area.

1.3.2 Specific objectives

- i. To analyse the media campaigns and messages used in Kampala metropolitan area.
- ii. To evaluate the perception of the audience on road safety media campaigns in Kampala metropolitan area.
- iii. To explore strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area.

1.4 Research questions

This study answered the following research questions;

- i. What road safety media campaigns and messages are used in Kampala metropolitan area?
- ii. What are the perceptions of the audience on road safety media campaigns in Kampala metropolitan area?
- iii. What strategies/solutions can be used to improve road safety media campaigns within in Kampala metropolitan area?

1.5 Scope of the study

The scope of the study involved the content scope, geographical scope and time scope which aimed at indicating the depth of the investigation.

1.5.1 Content scope

The subject scope was generally focused on the effectiveness of road safety media campaign on utilization of road safety public awareness in Tweddeko campaign in Kampala metropolitan area. In particular the study needed to evaluate the effectiveness of road safety

media campaigns and measures in Tweddeko campaign in Kampala metropolitan area, to explore the relationship between increased numbers of vehicles with road traffic accidents and to examine the level of awareness of the road safety measure on various road users in Tweddeko campaign in Kampala metropolitan area.

1.5.2 Geographical scope

The research was carried out at Tweddeko campaign in Kampala metropolitan area in Uganda.

1.5.3 Time scope

The study covered a period of 6 years; from 2016 to 2021. This is due to data availability and comparison. This was also considered a period good enough to acquire the necessary information in line with the study.

1.6 Significance of the study

The reason why this study was significant can be explained from three aspects;

First, this study will add knowledge towards existing stock of knowledge in road traffic accident, and road safety measures.

This research will offer some empirical messages for policy makers, road users and other stakeholders.

The results of how to reduce road traffic accidents can inspire the government to take appropriate measures.

Third, it is hoped that this study may help researcher to widen capacity of look at issues of public concern on road safety.

1.7 Organization of the study

Chapter One: The study introduces the problem, background of the study, statement and described the objective of research and research questions to be addressed by the study.

Chapter Two: The chapter presented a review of literature and relevant research associated with the problem addressed in this study.

Chapter Three: The chapter presents the methodology and procedures used for data collection and analysis.

1.8 Definition of key terms

Tweddeko is a Luganda word for “let us reconsider our ways” or “let us change our ways”.

Road safety:

This means that road safety could be conceptualize as that the condition of being protected against the road traffic accidents.

Safety:

Safety can also be defined to be the control of recognized hazards to achieve an acceptable level of risk.

Chapter two

Literature review

2.0 Introduction

The main objective of this study was to examine the effectiveness of the Tweddeko road safety media campaigns in reducing road traffic accidents in Uganda. The focus is to obtain a greater understanding of the problem of road accidents in developing countries and Uganda in particular. In this case, this section presents a literature review especially by reviewing the relevant document, books, article, research and journals that have discusses about road safety, road accidents particular in the knowledge related to accident rates and trends, causality, effects and the appropriateness of preventive measures that has been taken by the government and other stakeholders. In its specificity, this section aims to look for available knowledge about the problem for the purpose of identifying a research gap which needs to be filled in by this study.

2.1 Theoretical review

There is a wide range of theories that have been utilized in the development of mass media campaigns. There are macro-level theories that postulate that social circumstance plays an influential role in behaviour change. They attempt to account for essential influences within the socio-cultural environment. The theories include; social marketing, diffusion and community empowerment.

2.1.1 The Theory of Reasoned Action (TRA)

Fishbein and Ajzen's (1975) theory of reasoned action (TRA) proposed that a person's behavioural intention determines the probability of performing a specific behaviour.

Behavioural intentions are based on a weighted set of beliefs about the consequences of behaving in that way.

The model was designed to provide a framework for understanding the relationship between attitudes, beliefs, intentions and behaviour (Han, 2015). The model assumes that people are logical and consistent in the way they process information and make decisions and furthermore, that, attitudes and social norms are the sole determinants of intention (Taherdoost, 2018). Beliefs about behaviour consequences and the evaluation of these consequences influence attitudes towards the behaviour (Tankard & Paluck, 2016). Normative beliefs (beliefs about others with respect to performing the behaviour) and the motivation to comply with those normative beliefs predict subjective norms (Grube, Morgan, & McGree, 1986).

Fishbein & Ajzen (1975) suggested that TRA also be used to suggest specific message construction. The salient beliefs (this refers to both attitudes and normative beliefs) relating to the variable need to be targeted by the message in order to change attitudes and subjective norms, and then subsequently, behavioural intentions and behaviour (Delaney, Lough, Whelan & Cameron, 2004). The application of TRA would need to include efforts to influence the individual's intentions to use a seat belt in two ways. Firstly, determining the most important attitudes about seatbelts, and secondly, identifying and utilizing significant others (e.g. family, peers, or co-workers) whose attitudes, behaviours, and expectations reinforce seatbelt use and help motivate the individual to comply (Delaney, Lough, Whelan & Cameron, 2004). O'Connor (1990) however, stresses that the link between attitude and behaviour varies in strength depending on the expected likelihood of an outcome and the extent to which the attitude is focused on some specific action to be performed. Ajzen and Madden (1986) reported that the total set of salient beliefs would need to be changed in order to change the attitude or subjective norm and consequently the behaviour. If only one belief changed, there would be a

decreased likelihood of behavioural change.

Taylor, Bury, Campling, Carter, Garfied, Newbould & Rennie (2006) suggested that the model provides clear direction for research questions, and has been applied to a number of consumer and health decisions with greater predictive validity for more specific behaviours and time frames. Specific areas of application have included health risk messages about tap water, sexual practices and AIDS related behaviours, childbearing intentions, testicular cancer prevention, exercise in schoolchildren, alcoholism, cigarette smoking, and many others (as cited in Conner & Sparks, 1996; Lapinski & Witte, 1998).

In conclusion, it is suggested that TRA can be used as part of a specific assessment process leading to message construction. TRA suggests that all salient beliefs must be changed to result in successful behaviour change (Taylor, Bury, Campling, Carter, Garfied, Newbould, & Rennie, 2006). The model, however, doesn't discuss the potential conflict between contradictory beliefs and influences. For example, significant others may have varying attitudes towards seatbelt use, which may end up contributing to a neutral attitude due to the conflict of weighing up the different influences. Furthermore the model does not address issues such as emotional response to the consequences, nor self-efficacy in regard to the behaviours. Emotional responses to health risks such as AIDS and cancer prevention are highly relevant to the consequent actions the individual takes (Weinstein, & Nicolich, 1993).

Furthermore, the individual needs to have sufficient self-efficacy to be able to complete any required behaviours. The model was designed for traditional health and illness related behaviours, and has been widely applied to such behaviours (Whitehead, 2001). In regard to road safety, the model does not include variables such as law enforcement, and the perception of that enforcement. Thus, the model is of limited applicability in road safety.

2.2 How the Tweddeko road safety media campaign was carried out

On the other hand, the Uganda Police Force (UPF), in partnership with other road safety stakeholders, has consistently implemented several measures to improve road safety including deployment of traffic police and integrated highway police along the highways (Fika Salama), public sensitization campaigns on road safety and security; joint coordination teams comprising police, Ministry Of Works & Transport (MoWT), bus owners, bus drivers, passenger protection bodies and the media, training of traffic officers, effective involvement of the public, private and civil society organizations, enhanced traffic alert squad operations and expedited rollout of the road crash data system (UPF 2015; 2016; 2017; 2018). The objective is to ensure safety of all road users, compliance of motorists with traffic regulations, building capacity for handling the ever-increasing crime challenges, elimination of corrupt traffic officers, beefing up the monitoring system availing reliable data for effective road safety programming, enhancing road safety coordination and management, inspection of all vehicles and testing learner drivers and those seeking class extensions (Mwebesa, Chou, Yoh, & Doi, 2021).

Despite the commendable progress in designing, passing and implementing the above measures, the achievement realized with regard to their impact on road safety is yet to be documented (Nduhura, Mulindwa, Alinda, Wanume & Settumba, 2020). This study sought to explore existing gaps in implementing road safety regulatory measures and assessing the impact of road safety measures implemented in the last five years in Uganda through such strategy dimensions. By answering these questions, the study was able to derive extended solutions towards reducing RTAs and RTIs in Uganda and other developing countries.

According to Nduhura, Mulindwa, Alinda, Wanume and Settumba (2020), governments have adopted variable speed limits and simulator training as part of the road safety measures. Dynamic and various speed limits have been adopted based on road conditions (Choi

& Oh, 2016). Other studies indicate that regulation of driver behaviour and driver training have been implemented to reduce accidents (Hatakka, Keskinen, Gregersen, Glad & Hernetkoski, 2002).

Nduhura, Mulindwa, Alinda, Wanume & Settumba, (2020) promote non-motorized measures to reduce RTAs. It is opined that such measures include roads designed to pull off pedestrian traffic and promote other non-motorized transport modes. Uganda police force uses express fines; instituting legal proceedings on drivers without permits have been alongside impromptu checkpoints. Route familiarity is argued to be one of the road safety measures. Nduhura & Mulindwa (2020) opine that drivers who frequent the same may easily detect blind spots and changes on the road and avoid RTAs. Other initiatives have included providing simulator driving lessons to drivers of the future.

2.3 The perception of the audience on road safety media campaigns

While it has been asserted in Uganda that the increase in the number of vehicles on the road has led to an upward shift in RTAs (UPF, 2017; 2018), the global trends for the period 2007 to 2016 as cited, RTAs increased with fatalities such as death when number of vehicles declined (WHO, 2018). Data from interviews reveals that the cause of the increase in RTAs has majorly been due to a mismatch between investment in transport infrastructure and population of vehicles (Uganda National Roads Authority, 2020). This view is consistent with earlier empirical studies by Wanume et al., (2019) that argue that limited investment in roads and associated infrastructure in Uganda has remained one of the major causes of RTAs and associated fatalities.

Findings from the annual police crime reports reviewed (UPF, 2017 & 2018) point to corruption among traffic officers. By taking bribes from motorists in breach of traffic rules, some police create an environment for drivers to breach rules and get away with it. This view is consistent with Wagner & Hout (2019), Kunkel (2019) and Transparency International (2017, 2018) that argue that the integrity of police is usually compromised, rendering policing ineffective. Highways are undergoing a revolution in terms of financing development, operation and maintenance (Helling, 1997). Government of Uganda is reverting to its traditional role of financing development, leaving operation and maintenance to private developers. While the mentioned roles have been opened to private operators, road safety has not been transferred to them (Nduhura, Mulindwa, Alinda, Wanume & Settumba, 2020).

To reduce the accident severity index, traffic calming strategies such as speed governors, raised crosswalks and safety islands among others can help to control speed and regulate traffic (Nduhura, Mulindwa, Alinda, Wanume & Settumba, 2020). Such measures have been deemed effective in countries like Saud Arabia (Jozwiak & Jacobson, 2000). To enhance the reduction of the accident severity index, there is need to locate and segment crash points with the objective of installing signals to alert drivers of such crash points. Kumar, Ashish, Gowtham, Balaji and Prabhu (2020) recommends mandatory driver assistance technology with in-built speed control systems. While drivers have a choice to adopt them or not, such systems have proven helpful to governments in reducing the over-speeding problem by drivers (Wiafe, Abdulai, Katsriku, Kumi, Koranteng & Boakye-Sekyerehene, 2020).

2.4 To assess the different road safety media campaigns used in Kampala metropolitan area

Identification of target behaviour has ramifications for many details of a mass media campaign (Ameratunga, Hajar & Norton, 2006). Many strategies and theories that are relevant for brand-focused campaigns are less relevant for health behaviour campaigns (Nordfjærn, Jørgensen & Rundmo, 2011). Further differentiation can be made between legal behaviours that carry health risks (e.g. sun exposure, smoking, unsafe sexual practices) and illegal health risk behaviours (e.g. speeding, non-use of bicycle helmets) that are linked with legislation and (sometimes) enforcement. Different strategies are required for different types of behaviours and their associated legal status. The issues regarding the legal status, and any associated enforcement add further complexity to both the development and evaluation of mass media campaigns. Furthermore, the complexity of the components within the models is increased. For example, subjective norms would not only relate to significant others' perception of the health risk and the recommended actions, but also regarding the legal ramifications of non-compliance. Rothengatter and Carbonell Vaya (1998) found that experiments using behavioural messages to modify speeding behaviour were more effective than those using attitudinal messages, regardless of media used.

The target group also needs to be carefully identified through consideration of the issues involved, including not only the legal status, but also the nature and definition of the behaviour (Webster Jr, & Wind, 1972). A well-defined behaviour is more appropriate for a short message (Cameron & Harrison, 2018). The most effective strategies and content vary for different age and/or gender groups (O'Donovan, 2018). Identification of the target behaviour leads to identification of the characteristics and circumstances most frequently associated with the behaviour, and hence, identification of the target group (Anable, 2005).

Once the target behaviour has been identified, the campaign and message characteristics can be developed. One of the most basic issues in considering campaign characteristics is the choice of appropriate media. Possible media includes television, radio, press advertising, cinema advertising, and brochures. Cameron and Harrison (2018) reported on the advantages and disadvantages of each type of media. They reported that television has generally been considered the most persuasive medium, due to the realistic depiction of human emotion and moving images. Radio can be particularly significant in areas with wide population distribution and remote areas. In-car immediacy is also an added advantage, along with the capacity to target specific regional areas. Press advertising allows for the portrayal of graphic images, and the provision of text. Outdoor advertising is confined to graphic images and key text. Cinema advertising is usually used as an adjunct to television advertisement campaigns, often showing the same film clips. Brochures can include graphic images and text, with the advantage of being able to convey quite complex messages.

Further important variables relate to media placement, including issues such as duration of campaign, intensity, timing and exposure (Delaney, Lough, Whelan & Cameron, 2004). These issues are also crucial in terms of cost effectiveness. The intensity of media placement needs to achieve sufficient intensity to be received and absorbed by the target audience (Kiwunuka-Tondo, Hamilton & Katz Jameson, 2009). Phillips, Ulleberg and Vaa, (2011) conducted a meta-analysis of 48 campaigns, and included length of campaign in their evaluation. They suggested that longer campaigns provide a longer period of time for people's behaviours to change, including those people that are slower to change. Yet they also allow longer for backsliding after initial compliance. The authors found that campaigns lasting one year or less were more successful than campaigns of a longer duration; however they also stated that shorter campaigns may have achieved greater frequency of contact. As they were unable to code frequency of intensity of the campaigns, this was unable to be tested. Timing of media

placement also plays a part in reaching the target audience. For example, a campaign targeting parents would need to play when parents are likely to be exposed to that media.

In the category of message characteristics, there are two major conceptual areas requiring consideration in message development: specifically, content and style Borah (2011). Message content needs to be based in research to establish the specific characteristics of the target behaviour and target group (Wundersitz, Hutchinson & Woolley, 2010). Establishing specific characteristics then allows identification of the target group's attitudes, perceptions and self-reported behaviours. Cameron and Harrison (2018) also recommended that if there are a number of related messages, they should include a consistent slogan. Furthermore, there should not be too many different messages in any one-time frame, in order to avoid confusion among the target audience World Health Organization (2007). Message content also needs to be realistic and credible, portraying members of the target group. Snyder and Hamilton (2002) discussed the role of enforcement. They reported that campaigns that included messages about enforcement showed larger effect sizes than persuasive campaigns without enforcement messages. They also suggested that in the absence of enforcement, messages that contain new information were associated with greater effect sizes.

The following report is concerned with mass media public campaigns on road safety. Due to a wide range of terminology used within the literature, a number of terms were defined. The term "mass media campaign" was used to describe public communication campaigns, or public education campaigns. The term refers to a form of advertising, specifically, paid media advertisements designed specifically for a target concept (Couldry & Turow, 2014).

Liu, Rice & Atkin (2001) defined such campaigns as "purposeful attempts to inform, persuade, or motivate behaviour changes in a large audience within a given time period.

The term “public relations” was used to refer to any material, whether paid or unpaid, that is intentionally released and of a supportive nature to the concept(s) in the mass media campaign (Delaney, Lough, Whelan & Cameron, 2004). This material may take a variety of forms, for example, newspaper articles; talk back radio, and/or press releases. Public relations are defined as “the practice of working to present a favourable image” (pp. 220, 85). The term “associated publicity” was used to refer to unintentional, unpaid material related to the mass media campaign and public relations (Delaney, Lough, Whelan & Cameron, 2004). This material may cover the same or closely related topics and may take the same form also (e.g. talk back radio etc.), however, is not supported by the organisation(s) that disseminated the public relations activities and mass media campaign. Publicity such as newspaper articles or TV interviews may also be a mix of associated publicity and public relations. Also, it may not always be possible to identify whether publicity is public relations or associated publicity. The term “publicity” was used to refer to a broad category that encompasses all the concepts discussed, including mass media campaigns, public relations, and associated publicity.

Importantly, the research focuses on the evaluations of mass media campaigns by using three sources of data with which to estimate the effectiveness on the overall behaviour change of road users. Crash data, overt behaviour (including objective measures of speed, alcohol consumption, and traffic offences) and self-report data (including self-reported knowledge, risk apprehension and attitudes towards speeding and drink driving for example). Whilst the study is primarily focused on campaigns aired on television, in some instances radio and billboards may be incorporated in television campaigns as a secondary focus. The study does not include educational campaigns carried out in schools, or campaigns aimed to increase drivers’ use of public transport. As the majority of campaigns are targeting drivers, the evaluations will focus on these road users. However, any evaluations targeting specific road users (i.e. pedestrians, truck drivers, cyclists, motorcyclists) was also included.

Within the safety advertising domain, there are two distinct forms of advertisements: product and health advertising. According to Rutherford (2000) product advertising usually persuades an individual to maintain a particular habit but to switch brands (e.g. continue to eat hamburgers but switch from brand A to brand B). Health advertising usually involves attempts to persuade an individual to change their behaviour (e.g. reduce exposure to the sun to minimize the risk of developing skin cancer), and is generally a more difficult aim to achieve. In some cases, the same concept can be advertised from both the product and health arena. For example, excessive speeding is a common behaviour targeted in road safety campaigns and speed appeal is used to advertise new cars.

2.5 The effectiveness of the road safety mass media campaigns

A large body of international literature exists that examines the effectiveness of road safety mass media campaigns (Tay, 2005). Elliott (2013) reviewed those evaluations of mass media campaigns targeting key areas of road user behaviour such as drink-driving, pedestrian safety and seat-belt use. When examining the effect of such campaigns using all available measures of effect it was estimated that on average the mass media campaigns will generate a 7.5% reduction in the outcome measure of effect. However, when measures of effect relating to awareness of the campaign or campaign message are excluded from the estimation, the average effect of a mass media campaign is estimated to be 6%. In addition, there is a weak inverse relationship between the base level of the measure of effect and the impact of the campaign. That is, as the base level of the measure of effect increases, the magnitude of the change in the measure of effect is expected to fall.

Wundersitz, Hutchinson & Woolley (2010) reviewed only those evaluations of mass media campaigns that examined the impact of campaigns on crashes with themes related to driver behaviour, safety devices within a vehicle, or the vehicle itself. It was estimated that on

average a road safety mass media campaign will result in an 8.5% reduction in crashes during the operation of the campaign. Following campaign completion, the reduction in crashes is expected to increase on average to 14.8%. The effect of mass media campaigns with alcohol or speed related themes were also isolated.

The Organization for Economic Cooperation and Development (OECD) published a comprehensive report in 1994, which reviewed the role of attitude modification in road safety. The report also addressed theoretical issues pertaining to attitudes and behaviour and, similar to much of the texts acknowledged how often the terms attitudes and behaviour are often poorly defined. Furthermore, there has been longstanding debate concerning the relationship between attitudes and behaviour within the social psychological literature (OECD, 1994). Regardless of how this is conceptualized, attitudes have long been recognised as having an important influence on driver performance, making this an important road safety issue (OECD, 1994).

Whilst the definition of an attitude varies, an attitude can be broadly defined as a “hypothetical mental structure which determines actions or prepares a person to act in a certain way” (page 564-579). It is beyond the scope of this report to critically discuss the attitude-behaviour relationship issue. Suffice to say that issues of attitude-behaviour relationships concern what attitudes are more important as determinants of behaviour, and how these attitudes may be measured and modified in future mass media campaigns and programmes. Importantly, there is a divide in the literature as to whether mass media campaigns change behaviour and then attitudes, or whether an individual’s attitude changes and then their behaviour. In addition, road safety mass media campaigns often involve an enforcement component, so the issue of the attitude-behaviour relationship is further complicated; the effect that a mass media campaign has on attitudes and behaviour when the campaign is coupled with an enforcement component is essential when considering the efficacy of the campaign

(Wundersitz, Hutchinson & Woolley, 2010).

In mass media campaigns, content that focuses on the potential risk, whether intentionally or unintentionally, has the potential to raise anxiety or fear in the audience (Lapinski & Witte, 2018). Literature on risk communication has focused on the differences between layperson and expert risk perception (Douglas, 2015). Experts tend to view risk in a scientific, rational manner. Laypersons tend to evaluate risk in terms of familiarity, necessity, potential catastrophe, personal relevance or representativeness (Kishchuk, 2017). When the level of risk is perceived as unacceptably high, this tends to result in a fear response. Fear appeal literature outlines guidelines on health risk messages that motivate rather than inhibit behaviour change.

Witte, Berkowitz, Lillie, Cameron, Lapinski & Liu (1998) defined fear appeals as “persuasive messages that frighten an audience into adopting a recommended response” pp. 284-303. Fear appeal messages typically have two parts. The first part emphasizes the severity of the threat and the likelihood of occurrence. The second part of the message usually focuses on methods to avert or minimize the threat, and or increase perceived self-efficacy regarding the recommended response (Nelson & Moffit, 1988). The fear appeal can be thought of as the “cue to action” in the human bio monitoring (HBM). Research has shown fear appeals to be persuasive but only in certain conditions. Research on fear appeals regarding seat belt use has shown that a moderate level of fear arousal resulted in more frequent seat belt use (Lewis, Watson, Tay & White, 2007).

The criteria used to evaluate effectiveness across different studies also tend to vary, ranging from reported attitude change, reported intention to change, reported behaviour change and/or measurable behaviour change (Webb, Sniehotta & Michie, 2010). Another variable for consideration is the severity of different fears (Maddux & Rogers, 1983). For example, fear of

losing a licence for drink driving is not equivalent to the fear of dying in a car crash. In many fear arousal studies, the threat of death is used in the high fear condition, which Wundersitz argues is quite different to most other fears, further complicating any comparisons. Evaluations of road safety campaigns have also shown interaction effects between self-efficacy and fear levels (Wundersitz, Hutchinson & Woolley, 2010). The perceived likelihood that the threat will occur, may also vary between the different fear levels (i.e. high, medium, low), resulting in a fear arousal response that is the result of a complex interaction between the perceived probability, susceptibility and severity of the threat (Witte, & Allen, 2000).

In conclusion, fear appeals have been shown to be very effective in the area of road safety, notwithstanding the ongoing debate regarding the optimum level of fear arousal and the difficulties with operationalizing such a concept (LaTour & Rotfeld, 1997). Furthermore, depending on the targeted age group and behaviour, optimum levels of fear will vary even further. The literature does, however, consistently state that health risk messages need to contain both a fear appeal (typically a health threat or negative consequences) and a recommended action in order to minimize the threat (Witte & Allen, 2000).

2.6 Empirical literature

The first of the two key reviews of mass media and road safety was conducted by Delaney, Lough, Whelan & Cameron (2004) and examined eighty-seven individually evaluated road safety mass media campaigns using meta-analysis techniques. The study examined road safety campaigns targeting six key areas of road user behaviour: vehicle restraint usage, drink driving, bicycle helmet usage, motorcycle safety, pedestrian behaviour and speeding behaviour. However, only those mass media road safety campaigns evaluated using outcome measures relating to awareness, knowledge of the issues, attitudes, motivations/intentions or behaviour were included in the study.

Further requirements for inclusion in the study included that the outcome measure(s) be taken both before and during/after the campaign and that some information concerning the campaign itself, such as message, media and rationale, be provided (Vaa, Areal, Delhomme, & Divjak, 2009). The eighty-seven campaigns evaluated provided a total of one hundred and seventy-five individual outcome measures of effect that were categorized by reference to numerous variables relating to the campaign characteristics. Of the measures of effect included in the study, 43% related to Australian campaigns, 20% to campaigns from the USA and 17% to European campaigns. The remaining measures of effect were derived from campaigns conducted in New Zealand, Canada and other countries. In terms of the duration of campaigns, 68% of the outcome measures of effect related to campaigns lasting ten weeks or less and only 16% related to campaigns lasting twenty weeks or more. The majority of the measures of effect resulted from educative campaigns (67%) and 21% from persuasive campaigns (Delaney, Lough, Whelan & Cameron, 2004).

Prior quantitative research was undertaken in campaigns resulting in 58 percent of the measures of effect although only a quarter of the measures resulted from campaigns based on a specific theoretical model of campaign development or effects (Kite, Grunseit, Bohn-Goldbaum, Bellew, Carroll & Bauman, 2018). The majority of effects were derived from campaigns involving public relations, associated publicity, and or legislation as a support, whereas, enforcement played a less prominent role (34% of measures of effect). Finally, television was related to the most measures of effect as the type of media used (121), followed by radio (105) and newspapers/magazines (99). The majority of the measures of effect related to campaigns that ran continuously (91) and used more than one advertisement (125) throughout the life of the campaign (Delaney, Lough, Whelan & Cameron, 2004).

Campaigns involving prior quantitative research and those built around an identifiable

theoretical model were found to be more successful than those in which these characteristics were not present (Zapf & Gross, 2001). No information is available as to what type of theoretical models has been used successfully. Where the base level of the measure of effect was less than 40%, campaigns based on prior qualitative research were most effective. Campaigns based on prior quantitative research also impacted upon the outcome measures although the effect was less significant when the base level of the measures was less than 40 percent. Finally, the use of enforcement and public relations or associated publicity as supporting mechanisms was found to enhance the effect of mass media campaigns (Delaney, Lough, Whelan & Cameron, 2004). The use of legislation alone had little impact on the outcome measures when not coupled with enforcement.

The second of the major reviews of evaluated road safety mass media campaigns was conducted by INRETS as part of the gadget project and published in March 1999 (Delhomme, 1999). The focus of the review was distinctly European; however, attention was given to evaluated campaigns conducted outside of Europe, particularly in North America, Australia and New Zealand. In all, twenty-one countries were examined and 265 evaluations from seventeen countries published between 1980 and 1997 were included in the evaluation (Gitagama, 2014).

The identification and selection of evaluations was conducted in a manner similar to that used in this report and discussed in section 1.1 above. For completeness it is noted that evaluations included in the review complied with the following selection criteria:

- The campaign under evaluation related to a road safety theme relating to drivers, safety devices in the vehicle or the vehicle itself
- At least one measure of effect was reported in the evaluation
- The campaign was conducted on a national, regional or local scale.

- The evaluation was reported in some manner (includes unpublished reports)

The authors used the identified evaluations to conduct two distinct types of analysis. First, a quantitative analysis was conducted detailing the characteristics of the body of evaluations. Of the 265 evaluations, the greatest numbers were conducted in the Netherlands (43). However, evaluated campaigns commencing in or prior to the early 1980s in the Netherlands were excluded to contain the number of campaigns from this country. Evaluated campaigns from the United States, Belgium, Canada, Australia and France also contributed significantly to the total number of evaluations, with each of these countries adding between twenty-five and thirty-eight to the total number. The evaluated campaigns included in the review were drawn mostly from published reports (36.2%), followed by unpublished documents (31.7%) and scientific journals (18.5%) (Delaney, Lough, Whelan & Cameron, 2004).

In addition, the types of results presented in each of the evaluations varied between countries (Welte, Feenstra, Jager & Leidl, 2004). In particular, evaluations conducted in the Netherlands, the United States, Australia and Canada presented the largest number of results using a before and during/after comparison. In contrast, French and Belgian campaigns were most often evaluated using one measurement only either during or after the campaign (Goossens, 2006). This suggests that the campaign evaluations conducted in the first mentioned countries were more able to provide statistically valid results. The use of explicit theoretical frameworks and prior analysis in the campaign development was also examined.

Approximately, 66% of the evaluated campaigns were based on prior analysis most frequently relating to behavioural or crash data. However, only 11.7% stated that the development of the campaign was based on an explicit theoretical framework. It is noted that the use of prior analysis or a theoretical framework to inform the campaign was associated with

the presentation of the relevant measure of effect both before and during/after the campaign (Adamos, Ausserer, Brijs, Daniels, Divjak, & Zabukovec, (2009). Where no prior analysis or theoretical framework was used, it was more likely that the measure of effect was taken only once either during or after the campaign with no opportunity for comparison with pre-campaign conditions.

The three most frequently identified campaign themes were alcohol, seat-belt use and speeding. The majority of these campaigns (76.2%) were aimed at all drivers although some campaigns were targeted at specific groups of drivers, particularly younger drivers (Mundorf, & Yang, 2010). The predominant medium used in the evaluated campaigns was television (67.5%). Billboards and radios were the next two most frequently used media. Further, these three media were the most likely to be used individually with no other supporting media. Smaller scale media such as cinema advertising and articles in the print media were rarely used as the sole media in a campaign. In addition to supporting media, the most common campaign supports were enforcement and educational programs (Alder, 1996). However, a significant proportion of the campaigns (26.4%), were not combined with any supporting activity. Approximately, 34% all the evaluated campaigns were combined with more than one supporting activity. Other campaign supports used included legislation, commitment with and without incentive, incentive alone and the use of feedback signs (Delaney, Lough, Whelan & Cameron, 2004).

The median length of the evaluated road safety media campaigns was sixty days (Peden & Scurfield, 2004). However, there were significant variations from this with the shortest campaign lasting three days and the longest over seven years. The median length of the campaign did vary according to the campaign theme with alcohol related campaigns having the highest median length (90 days). Campaigns related to the use of seat-belts had a median length

of 55.5 days and speeding related campaigns had a median length of 60 days (Ogle, 2005). It is noted however, that the difference in the median campaign length of alcohol and speed related campaigns was not statistically significant. However, evaluated campaigns related to seatbelt use were found to be shorter in length with 95% confidence when compared to alcohol related campaigns (Vasudevan, Nambisan, Singh & Pearl, 2009). Irrespective of the campaign theme, the majority of the evaluated campaigns ran over one continuous period (71.7%) with the number of repeats unknown in 14.3% of the evaluations (Delaney, Lough, Whelan & Cameron, 2004).

The second major analysis conducted by the authors was a meta-analysis. This technique was used to determine the average effect of road safety media campaigns on the frequency of crashes (Rundmo & Iversen, 2004). Therefore, only those evaluations presenting the effect of the campaign on crashes were used in the meta-analysis. This reduced the number of relevant campaign evaluations to sixty-six. A further sub-set of campaign evaluations was identified to ensure statistical reliability. As noted above, campaign evaluations were required to present at least one measure of effect in order to be included in the review. However, one measure of effect taking during or after the campaign is not sufficient to enable statistically reliable conclusions to be drawn as there is no opportunity for comparison with pre-campaign conditions. Similarly, where no comparison or control group is used, the effects attributable to the media campaign cannot be clearly identified. Therefore, only those campaigns taking at least one measure of effect before and during/after the campaign and using a treatment/control design were included in the meta-analysis (Streke, 2004). This restricted the number of evaluated campaigns to 35 studies from which 72 results were appropriate for use in the meta-analysis. Further, the analysis itself distinguishes the effects of road safety media campaigns during the period of the campaign and after its completion where possible.

In examining all media campaign types it was found that a road safety media campaign will reduce crashes by an average of 8.5% during a campaign and 14.8 after the campaign is completed (Iversen & Rundmo, 2004). This compares to the earlier result of Elliott (2008) who estimated a 7.5% reduction in the measure of effect generated by a mass media road safety campaign. However, it is noted that the target measure in this study is crashes only whereas all measures of effect were included in Elliott's research. Further, the distinction is made here between the immediate effect during a campaign and the effect of the campaign after its completion (Bird, Castleman, Denning, Goodman, Lamberton & Rosinger, 2021). A number of more specific effects have also been estimated using meta-analysis techniques. In particular, the effect of media campaigns with alcohol or speed related themes have been isolated (Morris, Levine, Goodridge, Luo & Ashley, 2006). Campaigns focusing on alcohol use were found to reduce crashes by an estimated 6.9 percent during the campaign and 30% after completion of the campaign. Campaigns addressing the issue of speed were found to reduce crashes by an average of 16.9% during the campaign. There were insufficient data to determine the effect of speed related campaigns after their completion.

The effect of campaigns with all other themes was also estimated. On average such campaigns were found to reduce crashes by 8.1% during the campaign and 8.7% following completion (Delaney, Lough, Whelan & Cameron, 2004).

The type of supporting activities used as part of a media campaign was also found to influence the overall level of crash effects (Elder, Shults, Sleet, Nichols, Thompson, Rajab & Task force on community preventive services, 2004). The effect of enforcement and legislation combined and the use of enforcement alone were estimated to result in crash reductions during the campaign of 16.8 percent and 6.9% respectively (Montella, Imbriani, Marzano &

Mauriello, 2015). The use of an explicit theoretical framework in campaign development led to larger crash reductions than when no framework was used. During a theoretically based campaign the frequency of crashes can be expected to fall by 20.1 percent on average. Similarly, following campaign completion the effect is expected to rise to a 23.4 percent reduction in crash frequency (Oxley, Corben, Fildes, O'Hare & Rothengatter, 2004). The theoretical models and theories upon which the most successful campaigns were based include attribution theory, general and special deterrence theory, the organizational behaviour model and the structural model of compliance. The analysis of the effect of the use of television as a medium in mass media campaigns produced a surprising result. The use of television in a media campaign generated slightly lower crash reductions when compared to campaigns in which no television was used (Dejong & Atkin, 1995). The authors suggest that the research led selection of media for use in campaigns may contribute to this result. That is, by choosing the most appropriate medium for a particular campaign the influence of television may not have been as great (Bart, Stephen & Sarvary, 2014).

To further define the impact of media road safety campaigns, their effect on fatal and other personal injury crashes has been investigated separately (Lam, 2002). The effect of media campaigns on personal injury crashes both during and after completion (6.8% and 14.3% respectively) is estimated to be less than the effect of media campaigns on fatal crashes during the campaign (19.3%) (Delaney, Lough, Whelan & Cameron, 2004). No significant after effect could be identified with the available data for fatal crashes.

2.7 Summary of literature

Given the above results it is again necessary to state the limitations of the analysis. As in Elliott's review there was an over-representation of well-designed and scientifically evaluated campaigns as these were more readily available. The authors noted that there was

some difficulty in accessing unpublished documents in countries not participating in the GADGET project. These two factors combined may have led to an over or under representation of the effect of media campaigns on crashes (Abay, Paleti & Bhat, 2013). Nevertheless, a useful distinction was made in this review between the effect of a campaign during its operation and after campaign completion. There was however some difficulty in determining the length of the after period for all campaigns included in the review and thus calculating the distribution of after periods across all campaigns. In turn this led to some difficulty in the interpretation of the results. Finally, a useful extension of the analysis not considered in this review is the effect of the base level of crashes attributable to the target behaviour on the effectiveness of the campaign (Delaney, Lough, Whelan & Cameron, 2004). The difficulty in obtaining such data may have prevented such analysis in this case. How are you going to measure the effectiveness (Berk, 2005)?

Chapter three

Methodology

3.0 Introduction

This chapter discusses the study design, area of study and description of the population, sampling techniques, data collection instruments, the procedure for data collection, data quality control, data analysis and limitations of the study.

3.1 Research design

The study used a quantitative approach that is mainly descriptive. Descriptive research method that tries to describe phenomenon, occurrence, event, that happens in the present. Creswell (1994) said the descriptive method of research is to gather information about present existing condition. Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, where, when and how questions, but not why questions. A descriptive research design can use a wide variety of research methods to investigate one or more variables. This study adopted a survey method to answer the research questions of this study. The researcher selected a descriptive survey design since it attempts to describe the characteristics of the variables of this study (Mugenda & Mugenda, 2003). Robson, (2002) asserts that descriptive research design studies have advantages in that they may be adopted to collect information that can be generalized from all population and that they provide relatively simple and straight forward approach to the study of values, attitudes, beliefs and motives.

As far as this study was concerned, the descriptive survey research design with quantitative approach was used. Quantitative descriptive research is a non-experimental type of research whereby the variables are measured using numerical terms although the variables

under interrogation are not manipulated by the researcher. This design was chosen because according to Wilkinson (2004) descriptive study design is useful in collecting and describing in-depth views from a sample. Since the researcher intended to obtain and described in-depth data from a sample, descriptive research design was appropriate. Quantitative data was gathered through a structured questionnaire in order to generate quantitative data for calculating inferential statistics that form a basis for conclusions (Amin, 2005).

3.2 Study area

The study was conducted in Tweddeko campaign in Kampala metropolitan area, Kampala district.

3.3 Study population

Population is defined by Polit & Beck (2004) as the aggregate or totality of those conforming to a set of specifications. The main participants of this study were existing employees and managers of Tweddeko campaign. The study targeted a population of 60 respondents.

3.4 Sampling design and procedure

This section discussed the different techniques of sampling procedure and sample size as follows;

3.4.1 Sampling design

The study adopted non-probability sampling using purposive sampling technique. Under the non-probability design, the researcher employed the purposive technique where the respondents were selected basing on experience and knowledge on the contribution of

Tweddeko road safety campaign in reducing the road accidents in Kampala metropolitan area in Uganda.

3.4.2 Sampling procedure

Sampling procedures are methods of selection of respondents chosen in such a way that they represent the total population as good as possible (Amin, 2005). The following sampling procedure was used to select the sample from the field. The researcher used purposive sampling technique to select respondents.

Purposive sampling is defined as intentional selection of informants based on their ability to elucidate a specific theme, concept, or phenomenon (Teddlie (2007)). The researcher employed purposive sampling to select respondents considering that purposive sampling could help one to reach the targeted sample quickly and it was easy to get a sample of respondents with the intended characteristics as point out by (Teddlie (2007)). Purposive sampling was also used to collect data from the key informant, traffic police officers and driving schools; these were believed to have reliable data and were knowledgeable about the topic under study, so they were in position to give dependable and detailed information.

3.4.3 Sample size

Sampling is the process of selecting part of the universe that is being handled with an intention of learning and drawing conclusions about the universe (Kothari 2004). The sample size was determined basing on Krejcie & Morgan model (1970). From the above population a sample size of 52 respondents were distributed as follows; traffic police officers 5, drivers of public transport 18, motorcycle drivers 14, pedestrians 10 and driving schools 5. therefore for this particular study, was made up of 52 respondents as distributed below;

Table 1:

Shows the target the sample size for the study

Category	Population	Target Sample Size	Sample technique
Traffic police officers	5	5	Purposive sampling
Drivers of public transport	25	18	Purposive sampling
Motorcycle drivers	15	14	Purposive sampling
Pedestrians	10	10	Purposive sampling
Driving schools	5	5	Purposive sampling
Total	60	52	

Source: Primary data, 2021

3.5 Data sources

Both primary and secondary sources of data were used because none of them could generate sufficient data when used singularly.

3.5.1 Primary data

Primary data refers to data observed or collected directly from first-hand experience and this was collected mainly through questionnaires. The data was collected through the use of self-administered questionnaires designed for the purpose because it was considered more appropriate to the respondents given the busy schedules (Kothari & Sekran 2013).

3.5.2 Secondary data

Secondary data included, information collected from the existing documents like; reports, databases, and electronic sources. According to Amin (2005), such data was said to be

cheaper and more quickly obtainable than the primary data and also was available when primary data cannot be obtained at all. The researcher used text books, newspapers, journals, web, TVs, students' dissertations, magazines and radios as secondary sources among others.

3.6 Data collection methods

Data are facts and other relevant materials, past and present, serving as the basis for study and analysis (Krishnaswami % Ranagnatham 2003). The researcher administered data collection by using one instruments i.e. questionnaires.

Questionnaire

Kothari (2004) defines the questionnaire survey method as one that involves the use of a set of questions printed in a defined order. This method was used since it was reliable and dependable for medium and large samples. It also gives respondents adequate time and autonomy from the interviewer bias and is also cheap (Mugenda & Mugenda, 2003). A survey was the main data collection method. These methods involve use of items that are likely scaled. Survey method was used to allow generalization of data. Surveys are preferable to big populations like the one of teachers this study targeted. Each item on the questionnaire was developed to address a specific objective, research question or hypothesis of the study depending on the conceptualization of the dependent and independent variables as in the conceptual frame work. The questionnaire was delivered by the researcher to the different respondents. The questionnaire was collected after an appropriate period of time.

3.7 Data collection instruments

The researcher used questionnaires to collect the data and also used different instruments in data collection for example pens, pencils, notebooks, rulers and spread sheet.

Questionnaire

A self-administered questionnaire for all respondents was the main data collection instrument. The self-administered questionnaire was used in the study because the study respondents were literate hence were in position to fill the instrument without external interference. Further, it allows distribution of questionnaires to a big number of respondents within a limited time (Amin, 2005). The questionnaire was structured using a five (5) point likert-scale, with items designed to examine the effectiveness of Tweddeko road safety media campaign on reducing road traffic accidents in Kampala metropolitan area. The questionnaire was designed according to the objectives and study variables and responses to the questions were predetermined on a five (5) point likert scale of 1-strongly agree, 2-agree, 3-not sure, 4-disagree and 5-strongly disagree.

3.8 Data quality control

This shows validity and reliability of data as follows;

3.8.1 Validity

The validity of an instrument is the extent to which an instrument measures what it is supposed to measure (Oso& Onen, 2008). The instrument validity was ascertained in a number of ways like discussing the questionnaires with supervisors/participants of Tweddeko road safety campaign team in order to judge the content validity. Usually the validity results should indicate a coefficient of validity index (CVI) of more than 0.7 for it to be valid for capturing the information stated in the research objective (Amin2005).

Expressed as number of items rated relevant by all judges divided by total number of items in the instrument.

$$\text{CVI} = \frac{\text{No. of items rated relevant by all judges}}{\text{Total number of items}}$$

$$\text{CVI} = 34/40 = 0.85$$

$$\text{CVI} = 0.85$$

The content validity index of 0.85 meant it was in line with that of Amin, 2004 who suggests that a validity index of 0.7 and above is agreeable.

3.8.2 Reliability

Reliability of an instrument is the ability of the instruments to collect the same data consistently under the same conditions (Amin, 2005). To ensure reliability of quantitative data, the cronbach's alpha reliability coefficient for test was performed. It was commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees.

Table 2:

Reliability Test

Reliability statistics	
Cronbach's Alpha	No. of Items
.867	15

Table above revealed the findings of 0.867 as reliability reflects that depicted by Amin, (2005). Who suggests the reliability of data to be 0.7 and above but not greater than 1.

3.9 Measurement of variables

Variables were measured using three scales of analysis, that is; nominal, ordinal analysis and likert scales analysis. When the questionnaire was being developed, the nominal scale measured those variables to do with names including sex and marital status of respondents. The likert scale was used to measure the effectiveness of road safety media campaigns.

3.10 Data collection procedure

Data collection procedures refers to steps you followed to make accurate observations or measurements of the variables you are interested in and you need to plan exactly how you implement them (Bhandari, 2020). After the proposal defence, the researcher got a cover letter from Uganda Christian University allowing him to proceed to collect data and prepare the report thereafter. This necessitated the researcher to present this letter to both employees and management of Tweddeko campaign for permission. The researcher informed the respondents about the objective of the research and asked for their consent to participate in the study. Assurance was given to all the respondents that their responses was kept confidential and only used for academic purposes.

3.11 Data processing

Data processing involves editing, coding, classification, tabulation and graphical presentation (Hall, 2010). The data collected was edited to make it unambiguous and clear as well as for maintaining consistency and accuracy. Data was entered and analyzed in statistical package for social science (SPSS) version 20.0 through the use of descriptive statistics.

3.12 Ethical consideration

An introductory letter from the Uganda Christian University was obtained to carry out field. The respondents were requested to fill in the questionnaires and prior consultations were made for the case of interviews. Anonymity and confidentiality of the respondents were totally observed by not asking them to put their names on the questionnaires. The researcher ensured much care on how the study was conducted, especially, when interviewing the subjects and as such human biases were maximally avoided. Utmost accuracy was maintained in the presentation of the research findings. Fontana (1994), reminds the researchers that, as objects are human beings, extreme care must be taken to avoid doing any psychological harm to them. This situation involved obtaining their informed consent, observing their rights to privacy (protecting their identities), protecting them from harm which might be physical or emotional (by the way the researcher asked questions and report findings).

3.13 Limitations of the study and counteraction measures

The study was lengthy and hectic covering a large group of respondents and it was therefore had anticipated limitations:

A major limitation of the study was the small sample size of only 50 participants, which may have limited the generalizability of the findings to the broader population. With such a limited sample, the results did not fully capture the variability and diversity of perspectives or experiences relevant to the research topic. Future studies were recommended to use a larger and more diverse sample to improve the reliability and external validity of the results.

The time expected to make a comprehensive study is very limited since the researcher at some

point has other commitments to attend to. However, the researcher had to improvise and utilize optimally the little time that was available, and also rescheduling of other commitments to complete the study.

The conclusion of the study was based on the subjective views of the respondents about the research topic as they conceive through human experience; hence they compromise generalization.

The questionnaire items are close-ended, hence the likelihood that some pertinent views and experiences were left out. However, the researcher attempted to use interviews and which supplement findings obtained from closed-ended questions. However, despite the anticipated limitations, the results of the research provided a meaningful basis for filling the gaps or for further research.

Chapter four

Presentation of the findings

4.0 Introduction

This chapter presents the findings and their interpretation and discussion. The methods and procedures of data collection in chapter three were used to collect data and other relevant information. The findings were interpreted, analyzed and discussed in relation to the objectives according to the research questions of the study and these were; to explore how the Tweddeko road safety media campaign carried out in Kampala metropolitan area, to evaluate the perception of the audience on road safety media campaigns in Kampala metropolitan area and to explore strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area.

4.1 Response rate

The study targeted a sample size of 52 participants of whom 50 responded, which implied a response rate of 96.2% and a non-response rate of 3.8%. This response rate was considered high and acceptable. This implied over 50% of the respondents participated in the study meaning that outcomes were available as according to Mugenda & Mugenda, (1999). Therefore, the findings were used for conclusions and generalizability of results.

4.2 Demographic characteristics of the respondents

The findings on demographic characteristics of respondents were considered and can be evidenced as below.

4.2.1 Gender distribution of respondents

The researcher was interested in finding out whether gender of respondents has an influence on the contribution of Tweddeko road safety campaign in reducing accidents in Kampala metropolitan area and the results were represented in the following table;

Table 3:

Gender distribution of the respondents

Gender	Frequency	Percentages
Male	40	80.0
Female	10	20.0
Total	50	100.0

Source: Primary data, 2022

From the above table 3, most of the respondents were male represented by 40(80.0%) and the least of the respondents were female with 10(20.0%). From the above table 4.1, most of the respondents were male represented by 40(80.0%) and the least of the respondents were female with 10(20.0%). This implies that the study was gender sensitive because it involved both males and females. On the other side where the males had the highest percentage of participation implied that majorly within traffic departments there are more males employed than females in Uganda.

4.2.2 Age distribution of respondents

Findings on the age of respondents were considered to find out whether the information was from mature people and therefore viable. The findings are as verified in the table below;

Table 4

Age bracket of the respondents

Age bracket	Frequency	Percentages
20-30 years	10	20.0
31-40 years	30	60.0
41-50 years	8	16.0
51-60 years	2	4.0
Total	50	100.0

Source: Primary data, 2022

From the table above 4, most of the respondents 30(60.0%) were between 31-40 years, 10(20.0%) were between 20-30 years, 8(16.0%) were between 41-50 years and the least number of the respondents 2(4.0%) were between 51-60 years. This implies that Tweddeko road safety campaign was more interested in people within the age group of 31-40 because they are still energetic and yearning to achieve a lot ahead. Therefore, they can interpret and answer the sampled questions as well as providing reliable information about my study. This can also implies that most of the people operating in Tweddeko road safety campaign are in their youthful ages of 31-40 which put them in good physical and mental position to handle the activities of the company.

4.2.3 Education level of respondents

The researcher also collected data in relations to the education attained by the respondents and findings are summarized in the table below.

Table 5

Education level of the respondents

Education level	Frequency	Percentages
Certificate	5	10.0
Diploma	13	26.0
Bachelor's degree	24	48.0
Master's degree	7	14.0
Others	1	2.0
Total	50	100.0

Source: Primary data, 2022

According to the table 5 above, the majority of respondents who were interviewed 13(26.0%) have attained a diploma, 24(48.0%) had bachelor's degree, 5(10.0%) had certificates, 7(14.0%) had master's degree while 1(2.0%) of the respondents had attained other qualifications. Level of education has a significant implication of people's ability to understand and comprehend road safety and campaign issues and the role of media campaigns most especially Tweddeko campaigns initiated by traffic police since majority of the respondents had attained significant level of education, it implies that the responses provided by these were from well-informed source and persons. This makes the data collected quite reliable for drawing corresponding conclusions. This also implies that most of the respondents were able

to comprehend what was asked during the study, given that they are knowledgeable about the contribution of Tweddeko road safety campaign in reducing accidents in Kampala metropolitan area in Uganda. The high level of education also means employees are qualified for their tasks and are in position to interpret Tweddeko road safety campaign policies in reducing accidents in Kampala metropolitan area.

4.2.4 Duration at work of the respondents

The study researcher was interested in finding out whether the respondents had worked with Tweddeko road safety campaign for relatively a long period of time and were informed of the routine activities carried out in all departments.

Table 6

Duration at work of the respondents

Years	Frequency	Percentages
1-3 years	20	40.0
4-6 years	30	60.0
7 years and above	-	-
Total	50	100.0

Source: Primary data, 2022

The results from table 6 showed that majority 30(60.0%) of the respondents had served in Tweddeko road safety campaign for a period between 4-6 years. At least 20(40.0%) had served for 1-3 years while none had served for a period of 7 years and above. This implies that the employees have served a reasonable period of time to be able to evaluate the contribution

of Tweddeko road safety campaign in reducing accidents in Kampala metropolitan area in Uganda. Experience of 4 to 6 years amongst the majority company staff is reasonable enough for employees to be acquainted with the contribution, perception and attitudes of Tweddeko road safety campaign in reducing accidents and understand how it affects the road users in Kampala metropolitan area.

4.3 To explore how the Tweddeko road safety media campaign carried out in Kampala metropolitan area

4.3.1 Response on whether the population is aware of the Tweddeko media campaign and measures in Uganda

Table 7

Showing whether the population is aware of the Tweddeko media campaign

Response	Frequency	Percent
Yes	20	40.0
No	30	60.0
Total	50	100.0

Source: Primary data, 2022

Table 7 shows the summary of the responses given by Tweddeko media campaign workers concerning whether the population was aware of the Tweddeko media campaign in Uganda. The field survey shows that majority (60.0%) of the respondents agreed that the population was aware of the Tweddeko media campaign in Uganda but only 40.0% of the respondents disagreed with the statement. Some interviewees say that the measures, and

campaigns would be so good and beneficial but the challenge was that the campaign had little capacity to cover other areas surrounding Kampala metropolitan area where mostly taxis and other cars come from. These deep village areas have no access to media so it became a challenge to disseminate safety information across the board.

4.3.2 Response on the number of years Tweddeko media campaign been operationalized in Uganda

The researcher was interested in finding out whether the number of years Tweddeko media campaign been operationalized in Uganda influenced the contribution of the Tweddeko road safety media campaign on reducing road traffic accidents in Kampala metropolitan area. The findings are evidenced in table 4.8 below.

Table 8

For how long have the Tweddeko media campaign been operationalized in Uganda?

Years	Frequency	Percentages
Below 1 year	5	10.0
2-3 years	10	20.0
4-6 years	32	64.0
Above 6 years	3	6.0
Total	50	100.0

Source: Primary data, 2022

The findings in relation to number of years Tweddeko media campaign has been operationalized in Uganda as presented in table 4.8 above show that the majority 32(64.0%) of the respondents reported that Tweddeko media campaign has been operationalized in Uganda for 4 to 6 years. The findings however show that the minority 3(6.0%) of the respondents Tweddeko media campaign staff reported that Tweddeko media campaign has been operationalized in Uganda for above 6 years. Experience of 4 to 6 years implies that the fear appeals have been shown to be very effective in the area of road safety, notwithstanding the ongoing debate regarding the optimum level of fear arousal and the difficulties with operationalizing such a concept.

4.3.3 Response on whether media campaigns aimed at improving road safety in Kampala metropolitan area

The researcher managed to collect information from respondents on whether Tweddeko campaign in Kampala metropolitan area aimed at improving road safety in Kampala metropolitan area, the information was got and presented as below in the table;

Table 9

Showing whether media campaigns aimed at improving road safety in Kampala metropolitan area

Response	Frequency	Percentages
Yes	40	80.0
No	10	20.0
Total	50	100.0

Source: Primary data, 2022

From the table 9 above, it was revealed that most of the respondents said yes by 80.0% and followed by who said no by 20.0%. This implies that Tweddeko road safety media campaign is aimed at improving road safety in Kampala metropolitan area. Respondents argued that majority of individual campaign evaluations focuses on the combined effect of a number of elements of a campaign and rarely isolates the role of the mass media component alone especially the Tweddeko on improving and reducing traffic accidents. This has further complicated the task of assessing the research to determine best practice. However, the consolidation of the individual pieces of contribution, in the form of roles provides an opportunity to highlight some of the key characteristics of successful road safety mass media campaigns by Tweddeko.

4.3.4 Response on whether there is an explanation on measures aimed at reducing road accidents within Kampala metropolitan area

The researcher managed to collect information from respondents about the explanation of measures by Tweddeko aimed at reducing road accidents within Kampala metropolitan area, the information was got and presented as below in the table;

Table 10

Showing response on whether there are measures aimed at reducing road accidents within Kampala metropolitan area

Response	Frequency	Percentages
Yes	42	84.0
No	8	16.0
Total	50	100.0

Source: Primary data, 2022

The table 10 above describes or shows that Tweddeko road safety media campaign has series of measures aimed at reducing road accidents within Kampala metropolitan area since majority of the respondents said yes with a respondent rate of 84.0% while only 16.0% that said no. This implies that they believe the measures advocated in the campaign were put into practice; less road accidents would take place. Some traffic officers and interviewees gave series of different measures like; preventive road signs and posts, giving trainings on safety driving motivated by traffic police, offering safety reflector jackets and enforcement of driving permits and road checkups.

4.3.5 The extent to which Tweddeko media campaign been effective

Respondents were asked the extent to which Tweddeko media campaign has been effective and the information obtained were presented in the table below.

Table 11

The extent to which Tweddeko media campaign has been effective

Response	Frequency	Percentages
To a larger extent	16	32.0
To a lesser extent	30	60.0
None of the above	4	8.0
Total	50	100.0

Source: Primary data, 2022

According to table 11 above, majority 30(60.0%) of the respondents agree to a lesser extent that Tweddeko media campaign has been effective, 16(32.0%) to a larger extent while

4(8.0%) reported none of the above implying that when examining the effect of such campaigns using all available measures of effect it was estimated that on average the mass media campaigns will generate a 7.5 percent reduction in the outcome measure of effect. Media choice has been widely discussed and presented in the study, with television considered the most effective choice for road safety campaigns. Television is particularly has been so effective when changing the pre-cursors to unsafe road behaviour, and also for emphasizing the consequences of unsafe road behaviour. Supporting material has been shown to add to the effectiveness of campaigns, and can utilize any of a range of other media, including radio, press advertising and brochures within the metropolitan area.

4.3.6 Response on whether Tweddeko media campaign should continue to be operating in Kampala metropolitan area

Respondents were asked about whether Tweddeko media campaign should continue to be operating in Kampala metropolitan area and the information obtained was presented in the table below;

Table 12

Showing whether Tweddeko media campaign should continue to be operating in Kampala metropolitan area

Response	Frequency	Percentages
Yes	43	86.0
No	7	14.0
Total	50	100.0

Source: Primary data, 2022

The table above 12 displays that whether Tweddeko media campaign should continue to be operating in Kampala metropolitan area since majority of the respondents said yes with a respondent rate of 86.0% while only 14.0% said no. This implies that road accidents have reduced in Kampala metropolitan area. One of the interviewees supported and had this to compliment that media placement needs to be of sufficient duration, intensity, timing and exposure. Placement needs to be timed appropriately for the target group. Research suggests campaigns lasting up to one year were associated with greater effect sizes. A minimum of three exposures is necessary for the commencement of assimilation, and consistent exposure is also required.

4.4 To evaluate the perception of the audience on road safety media campaigns in Kampala metropolitan area

4.4.1 Response on whether vehicles have increased in Kampala metropolitan area

Respondents were asked about whether vehicles have increased in Kampala metropolitan area and the information obtained was presented in the table below.

Table 13

Showing whether vehicles have increased in Kampala metropolitan area

Response	Frequency	Percentages
Yes	35	70.0
No	15	30.0
Total	50	100.0

Source: Primary data, 2022

The respondents were further asked about whether vehicles have increased in Kampala metropolitan area, 70.0% reported yes while 30.0% reported no. This implies that the increase in the number of vehicles on the road has led to an upward shift in road traffic accidents. According to the Uganda road safety report (2009), the average growth in the years 1998-2007 was 10%, registered vehicles as of December, 2005 were 231,197 nation-wide, while in December, 2006 and December, 2007 registered vehicles stood at 311,712 and 382,152 respectively. Out of the vehicles registered as of December, 2007, commercial vehicles, which include both passenger and freight vehicles, were estimated at 295,558 (passenger vehicles numbered 199,021 and freight vehicles numbered 96,537).

4.4.2 Response on whether road traffic accidents have increased in Kampala metropolitan area

Respondents were asked about whether road traffic accidents have increased in Kampala metropolitan area and the information obtained was presented in the table below;

Table 14

Showing whether road traffic accidents have increased in Kampala metropolitan area

Response	Frequency	Percentages
Yes	22	44.0
No	28	56.0
Total	50	100.0

Source: Primary data, 2022

Majority of the respondent 56.0% said that road traffic accidents have not increased in Kampala metropolitan area while 44.0% said road traffic accidents have increased. This implies that the contribution of Tweddeko road safety campaign has reduced road traffic accidents in Kampala metropolitan area.

As noted by Chiduo et al (2001) the government of Uganda has made a commitment to tackle the road safety problem by developing and implementing a comprehensive road safety program. However, despite this commitment by the government, the frequency of accidents over the past ten years has increased. The cost of road accidents in Uganda has recently been estimated at Ushs. 20 billion annually. Overloading on the major highways is estimated at 20-25% hence being one of the causes of undue damage to the road pavement (Mbabazi, 2010). This study therefore is interested to examine the effectiveness of road safety media campaigns in reducing road traffic accidents in Uganda.

4.4.3 Response on whether the road traffic accidents within Kampala metropolitan area is a result of poor preventive campaigns

The researcher asked respondents whether the road traffic accidents within Kampala metropolitan area is a result of poor preventive campaigns.

Table 15

Showing whether the road traffic accidents within Kampala metropolitan area is a result of poor preventive campaigns

Response	Frequency	Percent
Yes	30	60.0
No	17	34.0
Not sure	3	6.0
Total	50	100.0

Source: Primary data, 2022

The study findings revealed that majority 30(60.0%) of the respondents agreed that the road traffic accidents within Kampala metropolitan area is a result of poor preventive campaigns whereas 17(34.0%) disagreed with the statement while 3(6.0%) of the respondents were not sure. This implies that driving standards in Uganda are of poor quality, with behaviour leading to a large number of accidents. The Tweddeko road safety program has been instrumental in the development of road safety advertising in Kampala metropolitan. The program, commencing in the late 2010 represented a fundamental shift away from the existing road safety advertising programs towards a more systematic approach. Funding for the program was dramatically increased, which in turn led to a greater public profile, improved quality of advertisements and an increasing role as a support mechanism for enforcement operations. Grey advertising has continued to act as TAC's advertising agency, developing advertisements with additional road safety themes to drink-driving and speeding. Television continues to be the major component of the Tweddeko media campaign and budget.

4.4.4 Response on whether the population is encouraged to subscribe to safety road campaigns

The researcher asked respondents whether the population is encouraged to subscribe to safety road campaigns.

Table 16

Whether the population is encouraged to subscribe to safety road campaigns

Response	Frequency	Percentages
Yes	32	64.0
No	16	32.0
Not sure	2	4.0
Total	50	100.0

Source: Primary data, 2022

According to table 16 above indicates that majority (66.0%) of the respondents agreed that the population is encouraged to subscribe to safety road while 32.0% of the respondents said No. In an effort to enhance road safety, the government of Uganda through the Ministry of Works took significant steps to institutionalize a robust regulatory transport framework whose implementation, however, leaves a lot to be desired. Among the initiatives which face implementation gaps are: The national road safety policy, the driver testing regulations of 2012, the drivers’ instructors’ curricula of 2004, the driver examiner training programmes of 2008, motorcycle, PSV and HGV curricula and manuals of 2014, the lower primary (P1-P4) road safety education curriculum of 2003, the mandatory third party motor vehicle insurance scheme, the technical inspection of all motor vehicles, the RCDS programme (NCDC, 2014).

4.5 To explore strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area

4.5.1 Response on whether the population within Kampala aware of the Tweddeko safety campaign

The researcher asked respondents whether the population within Kampala aware of the Tweddeko safety campaign.

Table 17

Showing whether the population within Kampala aware of the Tweddeko safety campaign

Response	Frequency	Percentages
Yes	36	72.0
No	14	28.0
Total	50	100.0

Source: Primary data, 2022

With regard to whether the population within Kampala aware of the Tweddeko safety campaign almost 72.0% respondents agreed that the population within Kampala aware of the Tweddeko safety campaign. Furthermore, 28.0% of the respondents disagreed with the statement. This implied that road safety mass media campaigns are more successful in conveying information and changing attitudes rather than altering driver behaviour in Kampala.

4.5.2 Response on whether road users benefited from the Tweddeko road safety campaign

The researcher sought to establish whether road users benefited from the Tweddeko road safety campaign and the findings were presented below;

Table 18

Have the road users benefited from the Tweddeko road safety campaign

Response	Frequency	Percentages
Yes	10	20.0
No	35	70.0
Not sure	5	10.0
Total	50	100.0

Source: Primary data, 2022

With regard to whether to whether the road users benefited from the Tweddeko road safety campaign almost 70.0% respondents disagreed with the statement while 20.0% of the respondents agreed while 10.0% of the respondents were not sure. This implies that the road users have not benefited from Tweddeko road safety campaign since there is an increase in road traffic accidents which associated to death and injuries in Kampala metropolitan area. According to Harms et al. (2016) and Harms (2011), governments have adopted variable speed limits and simulator training as part of the road safety measures. Dynamic and various speed limits have been adopted based on road conditions (Hoogendoorn et al., 2012; Harms et al, 2016). Other studies indicate that regulation of driver behaviour and driver training have been implemented to reduce accidents (Harms et al., 2016).

Chapter five

Discussions and interpretation of the findings

5.0 Introduction

The main objective of the study was to examine the contribution of the Tweddeko road safety media campaign on reducing road traffic accidents in Kampala metropolitan area. This study discusses and interprets the findings in relation to objectives as below; to explore how the Tweddeko road safety media campaign carried out in Kampala metropolitan area, to evaluate the perception of the audience on road safety media campaigns in Kampala metropolitan area and to explore strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area.

5.1 Discussion and interpretation of the findings

5.1.1 Discussion and interpretation on how the messages of road safety media campaign carried out in Kampala metropolitan area

According to the theory of reasoned action (TRA) by Fishbein & Ajzen's (1975) a person's behavioural intention determines the probability of performing a specific behaviour. In these particular findings there is need to include efforts to influence the individual's intentions to use a seat belt in two ways. Firstly, determining the most important attitudes about seatbelts, and secondly, identifying and utilizing significant others (e.g. family, peers, or co-workers) whose attitudes, behaviours, and expectations reinforce seatbelt use and help motivate the individual to comply (Delaney, Lough, Whelan & Cameron, 2004). O'Connor (1990) however, stresses that the link between attitude and behaviour varies in strength depending on the expected likelihood of an outcome and the extent to which the attitude is focused on some specific action to be performed.

Relatedly, since the use of mass media in public health and road safety campaigns commenced, there has been much research conducted concerning the effectiveness of these campaigns within the Kampala metropolitan area (Kiwanuka-Tondo, Hamilton & Katz Jameson, 2009). However, the majority of this research investigates individual campaigns with a diverse range of messages and characteristics are not common to all campaigns (Dimitrova, Shehata, Strömbäck & Nord, 2014). These findings are not supported by Anable, (2005) who opines that the identification of the target behaviour leads to identification of the characteristics and circumstances most frequently associated with the behaviour, and hence, identification of the target group. Once the target behaviour has been identified, the campaign and message characteristics can be developed.

In same findings, available evaluations of mass media campaigns indicate that they are effective in improving road safety as measured by casualty crash frequency. Further important variables relate to media placement, including issues such as duration of campaign, intensity, timing and exposure. These issues are also crucial in terms of cost effectiveness. Findings suggested that longer campaigns provide a longer period of time for people's behaviours to change, including those people that are slower to change. Yet they also allow longer for backsliding after initial compliance. The authors found that campaigns lasting one year or less were more successful than campaigns of a longer duration; however, they also stated that shorter campaigns may have achieved greater frequency of contact. However, there is great variation in the magnitude of the effect sizes presented in the evaluations examined in this review.

5.1.2 Discussion and interpretation on the perceptions of the audience on road safety media campaigns in Kampala metropolitan area

Fishbein & Ajzen (1975) suggested that the theory of reasoned action can also be used

to suggest specific message construction. The salient beliefs (this refers to both attitudes and normative beliefs) relating to the variable need to be targeted by the message in order to change attitudes and subjective norms, and then subsequently, behavioural intentions and behaviour (Delaney, Lough, Whelan & Cameron, 2004).

The model was designed to provide a framework for understanding the relationship between attitudes, beliefs, intentions and behaviour (Han, 2015). The model assumes that people are logical and consistent in the way they process information and make decisions and furthermore, that, attitudes and social norms are the sole determinants of intention (Taherdoost, 2018). Beliefs about behaviour consequences and the evaluation of these consequences influence attitudes towards the behaviour (Tankard & Paluck, 2016).

According to the findings, the manner in which the effectiveness of a campaign is measured will influence the magnitude of the effect. Measures of effect such as awareness of a campaign or campaign message are likely to change the most as a result of a road safety mass media campaign. Findings are not related to Wundersitz, Hutchinson & Woolley, (2010), who suggests that the category of message characteristics towards attitude and perception of drivers are two major conceptual areas requiring consideration in message development: specifically, content and style relatedly; which are supported by Borah (2011) who contends that message content needs to be based in research to establish the specific characteristics of the target behaviour and target group.

5.1.3 Discussion and interpretation on the strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area

In this theory Ajzen & Madden (1986) reported that the total set of salient beliefs would need to be changed through action in order to change the attitude or subjective norm and

consequently the behaviour. If only one belief changed, there would be a decreased likelihood of behavioural change. According to the findings in this study, media choice has been widely discussed and presented in the study and solution with television considered the most effective choice for road safety campaigns. Television is particularly effective when changing the precursors to unsafe road behaviour, and also for emphasizing the consequences of unsafe road behaviour.

The findings are also supported by Angus & Langley (2018), who also contends that media choice and material has been shown to add to the effectiveness of campaigns, and can utilize any of a range of other media, including radio, press advertising and brochures within the metropolitan area. Relatedly, media placement also needs to be of sufficient duration, intensity, timing and exposure. Finally, placement needs to be timed appropriately for the target group and findings also suggests campaigns lasting up to one year were associated with greater effect sizes. Within the safety advertising domain, there are two distinct forms of advertisements: product and health advertising (Whelan & Cameron, 2004).

5.2 Summary, conclusions and recommendations of the findings

5.2.1 Summary how the messages of road safety media campaign carried out in Kampala metropolitan area

Since the theory of reasoned action (TRA) by Fishbein & Ajzen's (1975) states that a person's behavioural intention determines the probability of performing a specific behaviour. It is therefore difficult, on the basis of any individual piece of research, to draw definite conclusions relating to the most effective type or style of mass media campaign. Further, the majority of individual campaign evaluations focuses on the combined effect of a number of elements of a campaign and rarely isolates the effect of the mass media component alone. This

further complicates the task of distilling the research to determine best practice. However, the consolidation of the individual pieces of research, in the form of the two meta-analyses discussed in this report, provides an opportunity to highlight some of the key characteristics of successful road safety mass media campaigns. But a key limitation of much of the research in this area is that it does not isolate the effect of mass media campaigns on the relevant measure of effect from the effect of other supporting activities. This factor may contribute to the variation in the magnitudes of the measures of effect presented. Nevertheless, it is apparent that the extent to which any individual mass media campaign affects crash frequency is determined by the characteristics of the individual campaign.

5.2.2 Summary on the perceptions of the audience on road safety media campaigns in Kampala metropolitan area

Since Fishbein & Ajzen (1975) suggested that the theory of reasoned action can also be used to suggest specific message construction. As discussed previously, the relationship between attitude, perception and behaviour change is unclear and the mechanisms behind the relationship are still the subject of debate. Nevertheless, the research in the area of road safety at least, suggests that mass media campaigns are more effective in changing awareness when compared to objective criteria such as changes in crash frequency. It also indicates that the use of measures of effect such as awareness, whilst commonly used in the field of brand advertising, do not provide sufficient information to fully understand effects on road safety. They relate more to exposure and campaign intensity and do not represent actual changes in behaviour nor consequent reductions in crashes.

Second, the base level of the measure of effect will also influence the degree to which a campaign is successful. In general, the higher the base level of the relevant measures of effect, the smaller the expected impact of the mass media campaign. This is consistent with

expectations as the target group on which the campaign can act is smaller in size. When examining the cost effectiveness of road safety mass media campaigns this is an important factor to consider.

5.2.3 Summary on the strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area

In this theory Ajzen & Madden (1986) reported that the total set of salient beliefs would need to be changed through action in order to change the attitude or subjective norm and consequently the behaviour. If only one belief changed, there would be a decreased likelihood of behavioural change. Therefore, message characteristics also play an important role in the success of the campaign, and include both content and style. Research suggests that related messages need to include a consistent slogan in order to link the messages together, and optimize the audience impact.

New information can also increase the campaign effect size. Messages also need to be credible and realistic. The use of expert or target group relevant group models is also recommended. Research has also shown that a serious approach is more appropriate than a humorous approach.

Guidelines for campaign management have also been outlined. It is recommended that there is a key agency responsible for the co-ordination of all publicity, including the campaign and public relations. This also allows for priority setting. There should only be a limited number of themes and messages at any one time. Responsibility for decision-making regarding message development needs to be based on independent research rather than bureaucratic or governmental decisions. Community support should also be used where appropriate, as it has been found to increase campaign effects.

The evidence emerging from the psychological literature relating to the elements of successful campaigns is supported by the results from the evaluation research. In particular, three key conclusions have emerged.

5.3 Conclusions of the findings

Conclusion one: Campaigns with a persuasive orientation and those that use emotional rather than rational appeals tend to have a greater effect on the relevant measure of effect. In contrast, information based and educative campaigns have been associated with less effective campaigns.

Conclusion two: The use of explicit theoretical models and prior quantitative research to inform the development of road safety mass media campaign messages and execution has been found to increase the effectiveness of campaigns.

Conclusion three: The use of public relations and associated publicity appears to be more important to the outcome of the campaign than the use of enforcement. However, the combination of public relations and enforcement as supporting activities shows particularly large effects.

5.4 Recommendations

Stronger and more persuasive styles such as an emotive television advertisement can be used in order to change the precursors to unsafe behaviour during driving, or to achieve substantial reductions in road trauma. These would consist of public education materials with a high level of impact on the unsafe road behaviours. Such styles can also attempt to enhance the perceived consequences. In road safety this often consists of increasing the perceived the risk of enforcement.

The time between commitment to a media campaign and starting the campaign is often too short for the baseline measurement of the safety-related behaviour to be planned and take place. Consequently, there needs to be an on-going program of measuring the frequencies of certain safety related variables and behaviours-blood alcohol concentration, speed, the usage of secondary safety devices, and so on.

Uganda Police Force (UPF), Ministry of Works and Transport and other road safety stakeholders should work together to ensure that advertising campaigns and enforcement programs are coordinated, often with enforcement and advertising programs targeting similar high-risk behaviours. The combined effect of enforcement and publicity may be simply additive or potentially synergistic where the combined effect may be larger than expected given the effect of either program on its own.

Tweddeko road safety media campaign should continue to maximize the credibility and relevance of their advertisements. This could be achieved by developing advertisements that are perceived to be emotional, informative, and serious.

The Uganda Police Force (UPF), in partnership with other road safety stakeholders, has consistently implemented several measures to improve road safety including deployment of traffic police and integrated highway police along the highways (*Fika Salama*), public sensitization campaigns on road safety and security; joint coordination teams comprising police, Ministry of Works and Transport (MoWT), bus owners, bus drivers, passenger protection bodies and the media, training of traffic officers, effective involvement of the public, private and civil society organizations, enhanced traffic alert squad operations and expedited rollout of the road crash data system (UPF 2015; 2016; 2017; 2018).

5.5 Areas for further research

It is recommended that future research, where possible; examine the longer-term effects of mass media campaigns.

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List of appendices

Appendix I: Questionnaire

A questionnaire for the employees of Tweddeko campaign

Dear respondent,

I am a student at Uganda Christian University in the faculty of journalism and mass communication, conducting a study titled “Effectiveness of road safety media campaign on utilization of road safety public awareness in Uganda: A case of Tweddeko campaign in Kampala metropolitan area.” This research is being carried out in partial fulfillment of the requirements for the award of a bachelor’s degree in journalism and media studies at Uganda Christian University.

You have been selected as one of the key respondents in this study. I kindly request you to spare a few minutes of your valuable time to respond to the questions as honestly and accurately as possible. Please note that this research is purely for academic purposes, and all the information you provide will be treated with the highest level of confidentiality.

Thank you for your time and cooperation.

Section A: Background information of the respondents

(Tick in the appropriate box provided)

1. Gender

a) Male

a) Female

2. Your age bracket.

a) 20-30 years

c) 41-50 years

b) 31-40 years

d) 51-60 years

3. What is your level of education

a) Certificate

b) Diploma

c) Bachelor's degree

d) Master's degree

4. For how long have worked with Tweddeko campaign?

a) 1-3 years

b) 4-6 years

c) 7 and above years

Section B: To explore how the Tweddeko road safety media campaign carried out in Kampala metropolitan area

1. Are there media campaigns aimed at improving road safety in Kampala metropolitan area?

a) Yes

b) No

2. Are there measures aimed at reducing road accidents within Kampala metropolitan area?

a) Yes

b) No

3. Is the population aware of the Tweddeko media campaign in Uganda?

a) Yes

b) No

4. For how long have the Tweddeko media campaign been operationalised in Uganda?

a) Below 1 year

b) 2-3 years

c) 4-6 years

d) Above 6 years

5. To what extent has the Tweddeko media campaign been effective?

a) To a larger extent

b) To a lesser extent

c) None of the above

6. Do you recommend that Tweddeko media campaign should continue to be operating in Kampala metropolitan area?

a) Yes

b) No

Section C: To evaluate the perception of the audience on road safety media campaigns in Kampala metropolitan area

1. In your opinion have vehicles increased in Kampala metropolitan area?

a) Yes

b) No

c) Not sure

2. In your opinion have road traffic accidents increased in Kampala metropolitan area?

a) Yes

b) No

c) Not sure

3. Are the road traffic accidents within Kampala metropolitan area as a result poor preventive campaigns?

a) Yes

b) No

c) Not sure

4. Do you encourage the population to subscribe to safety road campaigns?

a) Yes

b) No

c) Not sure

5. What do you recommend to traffic agencies in as far as the increase in number of vehicles in Uganda?

.....
.....

Section D: To explore strategies/solutions aimed at improving road safety media campaigns within in Kampala metropolitan area.

1. Have the population within Kampala aware of the Tweddeko safety campaign?

a) Yes

b) No

c) Not sure

2. Have the road users benefited from the Tweddeko road safety campaign.

a) Yes

b) No

c) Not sure

If yes how?

.....
.....

If No why

.....
.....

3. What do you recommend traffic agents to do in order that to improve on the traffic jam and accidents in Uganda?

.....
.....
.....

4. Propose other measures that will be suitable for road safety in Uganda?

.....
.....
.....

Thank you for your cooperation

Appendix ii: Krejcie and Morgan table for sample determination

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10,000	373
65	56	220	136	480	214	1700	313	15,000	375
70	59	230	140	500	217	1800	317	20,000	377
75	63	240	144	550	225	1900	320	30,000	379
80	66	250	148	600	234	2010	322	40,000	380
85	70	260	152	650	244	2200	327	50,000	381
90	73	270	155	700	248	2400	331	75,000	382
95	76	270	159	750	256	2600	335	100000	384

Source: Krejcie & Morgan, 1970

NOTE: N=Total population size

S= Sample size

SCHOOL OF RESEARCH AND POSTGRADUATE STUDIES

Useful Guidelines for Assessment and Marks Allocation for Dissertations

1. Overall structure and presentation

The overall structure was good but there are a number of one or two line sentences and inconsistent spacing in between paragraphs. The document is missing page numbers.

Key Questions

Do fonts and font sizes match?

Is line spacing and margins consistent?

Are headings consistent in capitalization and lower case?

Does the cover page and introductory matter conform to style?

Does the abstract contain a purpose, objectives, method and findings that are aligned with the rest of the paper (not exceeding 300 words)?

Is grammar, punctuation and word choice accurate?

___ Exemplary (5) ___ Competent (3-4) ___ Needs Improvement (1-2) ___ Rejected (0)

2. Chapter One: Introduction 15%

The chapter is sufficiently presented, the problem is clear. The research objectives and questions needed to relate to the title of the study better. The title clearly focuses on Tweddeko campaign yet the research questions tend to be more general. If Tweddeko Campaign was intended to be used as a case study (which I do not believe to be the case), then it should have been stated as that for clarity. The author needs to clarify what the 6 years in the time scope mean.

Key Questions

Does the background section go sufficiently from broad to narrow on the topic?

Does the background section make a case for the problem statement?

Are concepts defined?

Does the problem statement clearly state the problem and the awareness of the gap in scholarly knowledge that the research is intended to fill?

Is the purpose clearly stated with objectives that support the purpose and that go beyond "study" to higher-level research (analysis, etc.)?

Is the purpose aligned to the research problem, question and/or hypothesis?

Is there a primary research question with aligned questions supporting it?

Is there clarity of difference between justification and significance?

Does content reflect quality organization and flow?

Is grammar, punctuation and word choice accurate?

Is all content related to the topic?

Is this section devoid of plagiarism?

Is the scope clearly defined?

Is conceptual or theoretical framework given?

Is there a chapter synopsis?

___ Exemplary (14-15) ___ Competent (12-13) ___ Needs Improvement (8-11) ___

Rejected (0-7)

3. Chapter Two: Literature Review

Overall, this chapter presents well. The section about Tweddeko campaign however, could have been placed in chapter. The candidate divides up the sections according to study objectives, then towards the end of the chapter there is another section titled "empirical literature" - that is confusing. The Theory of Reasoned Action should have been good if this was a behaviour change study so the author needs to show how the said theory guided his study.

Key Questions

Are there a minimum of 30 quality references?

Is there evidence of quoting original sources vs. sources within prior research?

Is there a balance of source types (i.e. data and prior research)?

Is there a balance of sources (i.e. evidence that more than one source drives this section)?

Is the student engaging with the literature and analysing it, rather than showing what he/she has read?

Do the sources align with the topic, purpose, research questions and objectives?

Are there references missing that should be included to better support the objectives and purpose?

Are there transitions within paragraphs and from paragraph to paragraph to

facilitate readability and coherence?

☐ Is all content related to the topic?

☐ Is there appropriate grammar, punctuation and word choice?

☐ Is attribution style followed for style and plagiarism avoidance?

☐ Is the literature up to date? (Depends on different faculties and the research being done)

☐ Are the key authorities included in the references?

☐ Is the research gap clear and articulate?

☐ Is the flow of information logical?

☐ Does the review of literature indicate the gap(s) to show the contribution of study?

__ Exemplary (18-20) __ Competent (14-17) __ Needs Improvement (9-13) __
Rejected (0-8)

4. Chapter Three: Methodology

There are a number of issues with the methodology. The candidate indicated the study followed a quantitative approach and the sampling process to be non-probability sampling however:

1. In the next paragraph, the candidate said that purposive sampling was used and continues to speak of key informant interviews
2. One of the objectives of the research is study the public perception ... yet the sample concentration is Tweddeko staff who are selected following the Krejcie and Morgan model?
3. The Tweddeko staff included traffic police, public transport drivers and pedestrians – these were the people from which the sample was drawn
4. If Tweddeko staff were a total of 52, why not use census sampling instead of using the Krejcie and Morgan table

Key Questions

☐ Does the paper reflect methodology aligned with the research?

☐ Is the methodology appropriate?

☐ Was the chosen methodology adequate for the research task?

☐ Has the student used appropriate methods (i.e. aligned with the methodology chosen)?

☐ Is study design and rationale appropriate?

☐ Is the cohort chosen adequately representative of a sample?

- Is the target population appropriate?
- Is sample size determination described?
- Is the sampling procedures described?
- Is the inclusion and exclusion criteria clearly stated?
- Are the ethical considerations during data collection considered?
- Is the reliability and validity of the research tools guaranteed?
- Is the data analysis process clearly described?
- Is there consistency in the methodology described?
- Are grammar and punctuation accurate?

___ Exemplary (9-10) ___ Competent (7-8) ___ Needs Improvement (4-5) ___ Rejected (0-3)

5. Chapter Four: Presentation and Analysis of Data

Key Questions

- Has the data been presented in a systematic and orderly fashion that enhances the analysis?
- Is the text coherent and devoid of grammar, spelling and punctuation errors?
- Does the chapter reflect the methods used?
- Are results consistent with the study objectives?
- Results from different categories of participants/respondents presented?

___ Exemplary (18-20) ___ Competent (14-17) ___ Needs Improvement (9-13) ___
Rejected (0-8)

6. Chapter Five: Discussion of Results 15%

I find that the results are affected by the inadequacies in chapter 4 above

Key Questions

- Have the results been discussed in relation to body of knowledge, controversies, and discoveries?
- Has the research done what it was designed to do?
- Does the discussion acknowledge limitations?
- Has the researcher referred back or linked to other findings?

☒ Are they properly interpreted and integrated into the final research statement?

☒ Are variables appropriately presented?

☒ Does the research point out obstacles and gaps?

☒ Is the text coherent and devoid of grammar, spelling and punctuation errors?

__ Exemplary (14-15) __ Competent (12-13) ___ Needs Improvement (8-11) __

Rejected (0-7)

7. Chapter Six: Conclusions (and Recommendations)

Key Questions

☒ Does the conclusion fit with what the researcher set out to do?

☒ Has the research question been sufficiently addressed?

☒ Have objectives been achieved?

☒ If used, is the hypothesis/es confirmed?

☒ Are the recommendations relevant?

☒ Do the recommendations have potential of impact?

☒ Is the conclusion delivered from the work done?

☒ Are there any limitations?

☒ Are there recommendations for further research (if any)?

☒ Are the recommendations emerging from the findings?

Is the text coherent and devoid of grammar, spelling and punctuation errors?

__ Exemplary (9-10) __ Competent (7-8) ___ Needs Improvement (4-6) __ Rejected

(0-3)

8. References and Appendices

Good job with the referencing – used APA and was consistent.

Key Questions

☒ Do references reflect adequate reading on the subject of research?

☒ Are references in alphabetical order?

☒ Is the proper style (APA, MLA, Harvard, Chicago, etc.) followed?

☒ Do the appendices contain proper attribution and support the dissertation

content?

Is there appendix content missing that would make this stronger?

Is the majority of literature 10 years and below?

Are the sources, categorised under journals, books, websites, etc.

6

Are all references cited in the text?

Are the research tools included in details as appendices?

___ Exemplary (5) ___ Competent (3-4) ___ Needs Improvement (1-2) ___ Rejected (0)