



International Journal Advances in Social Science and Humanities

Available Online at: www.ijassh.com

RESEARCH ARTICLE

The Causal Attribution of Road Traffic Accident among Victims and Drivers in case of Gondar town, North West Ethiopia

Erkihun Alemneh

Injibara University, Ethiopia.

Abstract: This study was conducted to explore the causal attribution of drivers and victims of road traffic accident in Gondar town. We used exploratory qualitative research method with eight participants including 4 drivers, 3 victims and 1 traffic police and which was selected using purposive sampling method. The result of this study finally concludes that, Most of the participants attribute for the road traffic accident to external factors than internal factors. These were bad weather condition, bad road conditions and failure to put symbols on difficult roads.

Keywords: Attribution, Road traffic accident, Victims, Drivers.

Article Received: 26 Aug. 2019 Revised: 16 Sept. 2019 Accepted: 25 Sept. 2019

Introduction

Road traffic accident is a global problem. It is one of the contemporary leading human security threats because it is the global socio - economic crisis. World health organization and World Bank [1] reported that road fatalities are expected to increase with a total between 900,000 and 1.1 million in 2010. This figure expected to reach between 1.1 million and 1.3 million in 2020.

Traffic fatalities have become an acceptable consequence of modern day mobility. The Global status report on road safety (2015), reflecting information from 180 countries, indicates that worldwide the total number of road traffic deaths has plateaued at 1.25 million per year, with the highest road traffic fatality rates in low-income countries. The severity of road traffic crashes is also likely to be much greater in Africa than anywhere else, because many vulnerable road users are involved and poor transport conditions exist.

Ethiopia is one of the developing countries with a very low motorization level, 1.7 vehicles per 1,000 people in 1996/7 [2], and the most recent data show 2 vehicles per 1,000 people in 2001 (UN, 2001). Despite having a very low road network density and vehicle ownership level, Ethiopia has a relatively high accident record. Evidences noted that human behavior is the most common factor accounting for more than 85% of all traffic accidents [3]. Among the risky human behaviors is driving over the

recommended speed, taking alcohol and driving, not using seat belt while driving is additional risky behavior identified. Mobile phoning while driving is becoming one of the riskier behaviors as well. Knowledge, belief, attitude on risky driving behaviors and driving experience were also important aspects of risky behaviors identified with evidences.

Since evidences are directing us the most important factor for road traffic accident is human behavior, constantly searching for the cause behavior Heider [4] is one of the major attributes. People broadly attribute the causes of behavior either to internal or external factors. An internal attribution is causes that are associated with the person's innate characteristics such as personality traits, moods, attitudes, abilities or efforts. An external attribution on the other hand, is the causes that are external to the person, such as the actions of others, environmental situation or luck.

Noted that Ability, effort, task difficulty and luck are the four attribution styles to which people ascribe their behavior. On the other hand it might be Stable (relatively constant) or Unstable (readily modified) causes. The fundamental premise is that when drivers attribute the "cause" of accidents to drivers, they also come to attribute responsibility to themselves for driving safely. Those involved in accidents often "blame" the occurrence on

someone or something rather than recognizing or accepting personal responsibility. Cause for an accident, for example, is often attributed to the other driver, weather, condition of the roads, construction, vehicle problems, etc.

Acceptance of personal responsibility for an accident often seems to be resisted. This ability to attribute cause and deflect personal responsibility when it comes to operating a motor vehicle is a fundamental barrier to cultivating a national safety ethic that prioritizes vehicle and pedestrian safety.

To overcome this barrier, transportation and safety administrators, car manufacturers, insurance agencies, and travel develop associations must greater understanding of how people attribute cause and responsibility when it comes to serious motor vehicle accidents and identify ways to make traffic safety messages more relevant and personal. Hence, the major interest of this study is exploring how drivers and victims attribute the occurrence of road traffic accident in Gondar city, Ethiopia.

Statement of the Problem

Traffic volume is becoming huge and is increasing from time to time; as a result of which and other factors, road traffic accidents have increased over the years and are becoming a common day to day phenomenon resulting in loss of life, human suffering, destruction of properties and the environment. Despite its type, national or international, road traffic crashes and financial losses due to road traffic accidents are a great burden on the victims, their families, different countries and the world as a whole and especially to the low and middle income countries that bear the major burden.

In addition to loss of life or reduced quality of life, road accidents carry many other consequences to the survivors such as legal implications, economic burden, home and vehicle adaptations as well as psychological consequences. A proportion of persons being involved in transport-related incidents develop psychological symptoms. In its most severe form this is described as PTSD (posttraumatic stress disorder) and can cause a high grade of impairment in everyday life for those affected. Road accidents induce costs in terms of both human costs and socialeconomic costs. Socioeconomic costs include, for example, hospitalization, long-term care,

material damage, police and rescue service, production loss, and welfare loss. From a welfare point of view, investigating loss in disposable income due to road injuries is of interest. So traffic accident is common problem for all nation and requires detail assessment to take proper measure that help to minimize the consequences of the problem. When the accident is happen people may use attribution to judge themselves differently than they do others or to judge others rather than themselves.

And they also attribute such as other drivers, themselves, road conditions/weather. Those who had been in serious accidents attributed greater responsibility to other drivers and environmental conditions. Despite this fact, there have many research has conducted on the traffic accidents but the consequence of car accident is increased over time. Assigning externally for cause of every traffic accident by drivers, victims and even the community is a major factor for the increasing concern of traffic accident. So this research is try to investigate the causal attribution of drivers and victims for road traffic accident in Gondar town.

Objective of the Study

General Objective of the Study

This study is aimed to explore the causal attribution of the drivers and victims of traffic accident in Gondar town.

Specific Objectives of the Study

The study is aimed to address the following specific objectives:

- To explore the causal attribution of traffic accident by drivers.
- To explore the causal attribution of traffic accident by victims or pedestrians.

Significant of the Study

Studying the attribution of the drivers and victims of traffic accident is important. This would help victims of the accident in order not to blame the accident on drivers for their psychological wellbeing. For drivers to take the responsibility of their actions on driving and improve their behaviors. For policy makers to identify factors which cause the traffic accidents and specifically implement actions to overcome this problem. For Gondar city administration to do on the road safety and other factors in which both drivers and victims attribute for traffic accident. It also intends to broaden knowledge for researcher practitioners to experience or practice on how research is conducted and specific techniques on the process of research endeavor.

Delimitation of the Study

The scope of this study is delimited in terms of as area of this study is Gondar town the study will delimited because this study will finally conclude only for Gondar town. Then it will be difficult for the result of this study to use or generalize at country or international level.

As the data collection procedure of this study is the study design were also delimit because its only qualitative research design. There would be also some emotional responses especially from victims as we were finding them in hospital. (The victims would be emotional during interview because they would be in hospital at a time of data collection and this would lead to some result bias.) The variables of the study are attribution but it would delimit /...

Operational Definition

Traffic accident is any vehicle accidents which occur in Gondar town and resulted in one or more persons being killed or injured.

Attribution

Drivers assigning a cause of traffic accident to victims and other factors and victims who assign the cause for drivers and other external factors.

Victim

Any person who involved in traffic accident and suffered from the accident which occur in Gondar town and who follow their medical treatment in Gondar university hospital at least in last two weeks.

Driver

A person who are licensed, confront (face) the accident at time of work or driving, and is now in prison as suspect for the accident to occur.

Review of Related Literatures

What is Traffic Accident?

According to Sonowal, accident is an event occurring suddenly, unexpectedly and inadvertently under unforeseen circumstances.

It further expressed that road traffic accidents can be defined as "An accident that occurred on a way or street open to public traffic; resulted in one or more persons being killed or injured, and at least one moving vehicle was involved to. defined road traffic accident (RTA) as: "an accident which is a random, and multi-factor event always preceded by a situation in which one or more road users have failed to cope with the road environment".

Fanuel [5] defined traffic accident as any vehicle accident occurring on a public highway that is, originating on, terminating on, or involving a vehicle partially on the highway. These accidents include: collisions between vehicles and animals, vehicles and pedestrians, or vehicles and fixed obstacles. Single vehicle accidents, in which one vehicle alone (and no other road user) involved, are also included.

Factors Contributing for Traffic Accident

Every accident is not usually attributable to a single cause, but to a chain of unique multiple factors associated with the road and environment deficiencies, vehicle defects and road user errors. A study was conducted in Bahir Dar about the cause of car accident. With a sample of 155 this study revealed that poor pedestrians manner in giving priorities vehicles where necessary, drivers' irregular use of seatbelt while driving, failure of drivers in giving priorities to pedestrians as required by the law and drivers use of excessive driving speed as the determining factors for the occurrence of road traffic accident in the city [6].

Direselgn and his colleagues conducted a research in Arba Minch town about the Magnitude and Factors Associated with Road Traffic Accident. From a total of 238 trauma victims, 162 (68.1%) were male and 76(31.9%) were female. The highest numbers of victims (33.6%) were aged between 20-29 years. And there result finally showed that the victim' sex, age, occupation were significantly associated with road traffic accident [7].

Attribution Theory and Traffic Accident

Fritz Heider [4] who is considered to be the founder of attribution theory drew the attention of social psychologists to the importance of studying people's naive, or

commonsense, psychological theories. Attribution theory attempts to understand how people explain and account for causality. And which was then expanded by Harold Kelley's (1967) who was well-known by his theory of co variation model. Heider made a lasting distinction between personal factors and environmental factors (e.g. situations, social pressure) in the way that we account for the causes for behavior.

Internal (dispositional) attribution is a process of assigning the cause of our own or others' behavior to internal or dispositional factors (e.g. personality, ability). External (situational) attribution is assigning the cause of our own or others' behavior to external or environmental factors. Heide asserted that people have a tendency of attributing success to internal factors and failure to external factors. There are studies that focus specifically on vehicle accidents internal and external attribution possessed by drivers and victims of the car accident. A study that conducted by Ho and his colleagues examines if vehicles accident survivors that means both the drivers and passengers took responsibility about the accident.

The study then found out that 20% of drivers participated in the study perceived themselves to be a fault and the remaining 80% perceived themselves not to be a fault. Those drivers who were accept responsibility for the accident associated with lower level of psychological distress. They finally conclude that internal attribution (i.e., self-blame) lessens the emotion of anger. This, in turn, reduces the sense of psychological distress and intrusive negative thoughts Ho et al [8].

A descriptive study was performed in two tertiary health-care delivery institutes in Kashmir, India to find out the reasons leading to road traffic accident in the opinion of the road traffic accident victims with a sample of 316 victims. The most apparent cause of road traffic accident in the opinion of the victims was unsafe acts of the driver (inappropriate speed and reckless driving), unsafe condition of the road (water logged roads), and bad weather condition. Most of the victims reported that they were injured whereas they were simply walking on road, while crossing the road, just standing on road and while running on road Singh et al [9]. Habtamu [10] recently conducted research on

causal attribution of road traffic accident by drivers and victims by using cross-sectional design, his result showed that, the driver more attribute external causes like road problem, traffic light problem, technical problem of the car ,over speed, using different drugs, the passenger not knowing the role of the traffic ,because of bad luck. Unlike drivers, Victims were more attributing to traffic accident to internal factors than external factors.

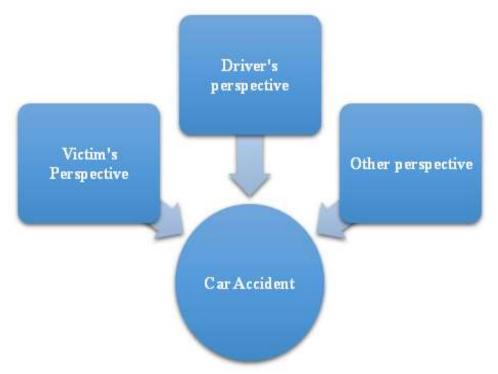
This shows the ability of driver, lack of awareness about technical problem of the car, carelessness, lack of ability, not knowing the role and regulation of traffic road, not giving opportunity to pedestrian, by over speeding, not getting the proper training and the existence of forged licensed drivers are cause for the traffic accident. In addition, a paper done by Karen Smith and John W. Martin to develop a framework for understanding how drivers attribute responsibility for auto accidents (A barrier to building a traffic safety culture in America) review the work of Stewart as "study found support for what is called defensive attribution theory (DAT).

DAT focuses primarily on how people make attributions that make them feel safe. DAT suggests that accident survivors make attributions of responsibility in a way that reduces their experience or sense of vulnerability. In Stewart's research, vehicle accident survivors completed a survey in which they gave attribution ratings to various "causes" of their accident: other drivers, themselves, road conditions/weather.

Those who had been in serious accidents attributed greater responsibility to other drivers and environmental conditions. Those in less severe accidents attributed about the same level of responsibility to themselves as to others. Stewart interpreted this to suggest that those involved in serious accidents used the attribution of the cause to others to make them feel "safe" or less vulnerable because they would be unlikely to be traveling under those same circumstances again.

Attributing causality to weather or road conditions gave victims a sense of control because they could choose to avoid similar circumstances in the future. But, Stewart also found that those who attributed cause to other drivers were more likely to exhibit avoidance behavior in regard to driving or riding in a vehicle [11].

Conceptual Frame Work



Source: Disaster Risk Management and Sustainable Development Department, College of Agriculture & Environmental Sciences, Bahir Dar University

Research Methods

Design of the Study

The research used exploratory qualitative research design.

Research Area and Period

Gondar town is located in the northern part of Ethiopia in Amhara National Regional State, North Gondar Zone at a distance of 747 km from Addis Ababa and 170km from the Regional capital Bahir dar. Its astronomical location is 12°45'North latitude and 37°45' East longitude. Gondar is one of the reform towns in the region and has a city administration, city service office, 12 subcities, 12 urban kebeles, and 10 rural kebeles.

The town has a structural plan which was prepared in 2004. According to the National Population and Housing Census Projection of 2011, the population of the town was 227,115. Out of these 98,563 (43%) were males and 128,552 (57%) were females. Average household in the town is 4. There is daily inter-urban transport service to and from Addis Ababa and other 23 major towns in the region. The town has a bus station as well as an airport. There are 374 taxis, 246 mini bus taxis and 274 horse-drawn carts for giving intra-urban transport service.

Sampling and Sample Size Determination

We selected the participants through probability sampling techniques specifically by using Purposive sampling techniques. Then, the researcher would be selected 8 sample respondents from 3-Victims, 4-Driver and 1-traffic Police officer for interview and discussions.

Participant's selection Criteria

Inclusion Criteria

The study were included the participants as below criteria.

- The participants should be Victims of road traffic accident and should be in hospital at least in last two weeks because of the accident.
- The participants should be Driver who had an accident and found in prison.
- The participants should be Traffic police officers who are at work.

Exclusion Criteria

The study would excluded the participants as below criteria: Drivers who were in road traffic accident but not in prison, Police officers and Victims with other medical or mental disorders.

Variables

Dependent Variables

The researcher identified dependent variables as below:

Independent Variables

The researcher identified Independent variables as below.

Victim's Perspective

Driver's reckless, inappropriate speed and Driver's irregular use of seat belt. Driver's perspective: Vehicle defects, Pedestrian's error in using the road, Weather Condition and Road Safety. Traffic police's perspective: Age of victims, Educational status of victim and Other External Factors

Data Collection Instruments and Procedure

In-depth interview were used to collect data from all participants of the study. It is a qualitative semi-structured interview allow focusing issues on main and incorporating issues, which may arise during the interview. All interviews would be tape recorded and selectively transcribed. The relevant data from the transcribed document would be used for the final analysis. The recurrent issues would identified, coded, and thematically analyzed. The themes were derived mainly from data obtained through key in format Questions, interviews and partly from objective of the study.

Method of Data Analysis

To analysis, the necessary data different statistical techniques would be computed. Specifically, descriptive statistics.

Research Result

Social-Demographic Data

A total of eight person participated in the study. Among them the three of them was victims of the road traffic accident, four was drivers and the remaining one is traffic police. From the three victims one was women and the other two was men with the age range of 20-27. They all are single. The educational level of one victim was diploma and the remaining two were high school graduate. All of the victims had no prior history of disability. But by the road traffic accident the two of the victims were bed ridden with fracture of the leg.

Our women victim participant had also leg injury without fracture. The four drivers are men with the age range of 20-35. Two of them are married and the other two are single. All of the drivers were high school graduate and above. All of the drivers were prisoner in Gondar prison because of the accident. The traffic police was women. She is 38 years old and married.

The Cause of the Road Traffic Accident

In this study there are seven accidents reported. Among the seven three of them are reported by victims and the remaining by drivers. As the victims reported the cause of the traffic accident, the first one was Bajaj accident and caused by the windy weather condition which results the driver difficult to monitor speed of the vehicle at curve.

The second one was the car (Sino) the cause as reported by the victim was the fault of the driver to decrease the speed of the car in curve and the road condition was the factor. The last victim reported the cause of the accident as difficult road condition in which the driver couldn't see the car in front of him. The drivers also reported the cause of the accident as follows. One cause was the improper use of the road by pedestrians and lack of knowledge about the traffic use rules. The other cause was the bad road condition and the inappropriate speed of the car.

The third driver reported the cause of the accident as rainy weather condition with floods and other driver irresponsibility in showing signs to the coming cars. The final reason of the driver's for the road traffic accident according to our data collection was bad road condition. As driver reported they all check the vehicle's technical thing before driving and they all believed they are skillful in driving.

The traffic police reported the frequent and the well-known cause of the road traffic accident that means vehicle accident which occur around Gondar was bad road condition that means when the road is uphill road, road with many curves, escarp, very narrowed, and "pista" roads which occupied with water, Bad weather condition, such as when if it is rainy the clouds cover the road so it is difficult for drivers to differentiate the things when they deriving and when windy weather the drivers will face difficulty to identify pedestrians or animals and also does

not differentiate difficult roads, pedestrians lack of information on the uses of road related to the left side and right side of roads traffic rules in using walk ways and pass the road with only saw the stopover vehicle, vehicle technical defect which are out service vehicles, vehicles without the instruction and spare part availability, and also failure to check out the vehicles regularly and most commonly drivers ignorance giving inattention on the traffic rules when they deriving, using substance and alcohol while driving, less experience and lack of proper training.

These traffic accident resulted increase burdens in social and economy of the town such as, increase death rate, disability and resources damages. And drivers who were suspected as cause for the accident are mostly did not take responsibility rather they prefer to escape and the compensation for the victims were usually given by the relatives of the driver or the car owner. Finally the traffic police reported that the concerned governmental body done a lot to decrease and prevent the road traffic accident but without the involvement of the whole society it is difficult to overcome the road traffic accident. Most of the road traffic accident occurred in Gondar town was at morning when all people go to work and schools because of the crowed and at evening as reported by traffic police.

Causal Attribution of Victims to Road Traffic Accident

Two of the victims was more attribute external factors which is giving the cause for the road traffic accident situational factors that is the bad road condition like road is uphill road, road with many curves, escarp, very narrowed, and "pista" roads which occupied with water, But one of the victim was attributing for traffic accident to internal factors which is the attribute the cause of road traffic accident personality and behavior that means the cause for the road traffic accident is the driver himself his lack of related vehicles technical ability to knowledge, lack of attention when he deriving and deriving over speed and recklessness.

Causal Attribution of Drivers for Road Traffic Accident

Out of the four drivers participated in this study three of them were more attribute for the road traffic accident externally than internal factors. These external factors are bad weather condition these are windy and rainy weather conditions, bad road conditions that means road with uphill, road with many curves, escarp, very narrowed, and "pista" roads which occupied with water failure to put symbols on the difficult road that direct drivers. lack ofinformation pedestrian's how to use road traffic rules especially those who live in rural areas, and other drivers lack of responsibility when accident occurs and competitions among the drivers.

One of the drivers was attributed for road traffic accident to internal factors like carelessness, lack of attention when they deriving, low maturation of the drivers to be responsible because of driving in early ages these manifested by high speed, listening music above normal volume and also the pedestrian's lack of information about rule of road use. When we come to the traffic police, she attributed for traffic accident many external and internal factors for the cause of traffic accident. But the main factors was attributed internally which is the driver's inability, lack of self-control which includes use of substance and khat during driving also addiction for these substance or khat push them to use while driving, high speed while driving.

Discussion

The attribution theory founder Heider [4] asserted that people have a tendency of attributing success to internal factors and failure to external factors. The finding of this study shows that Drivers were more attributing to traffic accident to external (weather condition, bad conditions, lack of responsibility of concerned bodies to put symbols on the difficult road that direct the drivers, improper use of the by pedestrians, other driver's road irresponsibility and vehicle technical defects than internal factors implies that they attribute the failure to external factors than internal factors.

In this study the main cause of the traffic accident as reported by the victim's was weather condition and road condition. Similar results also were reported from study conducted in Kashmir, India in which the main cause of the road traffic accident as reported by the word of the victim's the unsafe condition of the road (water logged

roads), and bad weather condition [9]. This study also find out the major cause of the road traffic accident in Gondar town as reported by the traffic police were bad road condition, weather condition, pedestrian's lack of knowledge in how to use road, vehicle technical defect, and most commonly drivers irresponsibility in using traffic rules, using substance and alcohol while driving, less experience and inability.

In study conducted in Bahir Dar about the cause of car accident showed that poor pedestrians manner in giving priorities to vehicles where necessary, drivers' irregular use of seatbelt while driving, failure of drivers in giving priorities to pedestrians as required by the law and drivers use of excessive driving speed. This describes that the major cause of the traffic accident in towns of Ethiopia are almost related and the same [6].

The study conducted in Gondar by Habtamu [10] showed that the driver more attribute external causes like road problem, traffic light problem, technical problem of the car ,over speed, using different drugs , the passenger not knowing the role of the traffic ,because of bad luck. Which is in line with our study result in which most of the drivers attribute externally for the cause of road traffic accident.

The similarity between these studies may be as a result of similar study area and the use of qualitative study design. On the same research by Habtamu [10] showed that Victims were more attributing to traffic accident to internal factors than external factors. Which is also in line with our result and this may be due to the above similarities.

Conclusion

This study was conducted to explore the causal attribution of drivers and victims of road traffic accident in Gondar town. We used exploratory qualitative research method with eight participants including 4 drivers, 3 victims and 1 traffic police and which was selected using purposive sampling method. From our finding we conclude that, Most of the participants attribute for the road traffic accident to external factors than internal factors. These were weather condition, bad road conditions, lack of responsibility of concerned bodies to put symbols on the difficult road that direct the drivers.

improper use of the road by pedestrians, other driver's irresponsibility and vehicle technical defects. However, few of the respondents attribute for the road traffic accident to internal factors like, psychological immaturity of drivers because of driving in early ages (these manifested by high speed, listening music above normal volume), the passenger's lack of knowledge about rule of road use, the driver's inability, driver's recklessness and inappropriate speed.

Recommendation

Road traffic accident damages the economic, social and psychological wellbeing of the people. To decrease the occurrence and the impact of the road traffic accident it's not the responsibility of one but the responsibility of whole society and its responsible organizations. Its increment is because of failure in taking responsibility by different groups work have to be done on the thought of the whole society and there should to be proper implementation and design of traffic rules by considering the thought of drivers and victims. In support of this, researcher try to recommend for a concerned bodied to reduce a frequency and consequences of road traffic accident for livelihood of a community as general. Based on this research finding the researcher shall recommend some of key actions should be taken by a responsible body as mentioned as below:

- The Gondar city transport authority shall be improve the community awareness raising activities on Road safety rules and expected actions from the community organizing/Conducting/ awareness creation Trainings, events. printing materials and periodical meetings on Proper use of Roads, Technical issues of a vehicles, Emotion and Conflict Managements, Proper use of safety materials and road signs, Monitoring skills for Drivers, Pedestrian, Traffic officers. Transport officers. Volunteers and key partners.
- The Gondar city Transport authority shall be strength the capacity and inability of executive bodies/Private licenses training center, Transport and Traffic department officers, Volunteers etc. strength continuous follow up and support for Private Licenses Training Centers Periodically to Provide Quality Training/Skills/ for their own trainees for reducing road accident related issues and shall be out of non-services and out-date Vehicles from provide city

transport services and make them replaced by new transport services.

 The Gondar city Mayor Office and municipal shall be fulfilled road infrastructures in fit with numbers of Vehicles, numbers of Pedestrian and General Populations and maintain those roads with unfinished constructions.

References

- 1. WHO (2015) Global status report on road safety.
- Girma Berhanu (2000) Effects of Road and Traffic Factors on Road Safety in Ethiopia. (A Thesis for the Degree of Dr. ING. Norwegian University of Science and Technology), Trondheim.
- 3. Peden M, Scurfield R, Sleet D, Mohan D, Jyder A, Jarawan E, Mathers C (2004) World Report on Road Traffic Injury Prevention, Geneva: World Health Organization.
- 4. Heider F (1958) the psychology of interpersonal relations. New York: Wiley & Sons.
- 5. Fanueal S (2006) Analysis of Traffic Accident in Addis Ababa: Traffic Simulation; Unpublished MA Thesis, Addis Ababa University (AAU), Ethiopia
- 6. Mossa A, Asaye Y (2015) the Causes of Road Traffic Accidents in Bahir Dar City, Ethiopia. International Journal of African and Asian Studies, 11.
- 7. Misker D, Tunje A, Mengistu A, Abera F, Yalelet M, et al (2017) Magnitude and

- Factors Associated with Road Traffic Accident among Traumatized Patients in Arba Minch General hospital. International Journal of Public Health Safe, 2: 127.
- 8. Ho R, G Davidson, M Van, Dyke, M Agar-Wilson (2000) the impact of motor vehicle accidents on the psychological well-being of at-fault drivers and related passengers. Journal of Health Psychology, 5:33-51.
- 9. Singh J, Sahni MK, Bilquees S, Khan SMS, Haq I (2016) Reasons for road traffic accidents—victims' perspective. International Journal of Medical Science and Public Health. 5: 814-818
- 10. Habtamu G (2017) Causal Attribution of Road Traffic Accident by Drivers and Victims in Gondar City, Ethiopia. Journal of Exclusive Management Science, 6 (11):2277-5684.
- 11. Karen Smith, John W (2007) Martin Southeastern Institute of Research (SIR)Understanding why drivers feel invulnerable and ambivalent when it comes to traffic safety.