

MOTOR INSURANCE INDUSTRY AND ITS ROLE IN ROAD SAFETY IN ETHIOPIA

A THESIS

**SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR AWARD OF MASTERS OF SCIENCE
DEGREE (MSc.)**

**IN
FINANCE AND INVESTMENT**

BY

EDOSA GETACHEW TAERA

ID NO: PR/014/04



**PRINCIPAL ADVISOR: AREGAWI G/MICHAEL
(A/PROFESSOR)**

CO- ADVISOR: NIGUS ABERA (MSc.)

**DEPARTMENT OF ACCOUNTING AND FINANCE
COLLEGE OF BUSINESS AND ECONOMICS
MEKELLE UNIVERSITY**

JUNE 2014

MEKELLE, ETHIOPIA

DEDICATION

*I dedicate this thesis manuscript to my mother
Aadde Magartu Chasa and my father **Obbo Getachew**
Taera for the sacrifices they paid that demanded in all
ways to present.*

DECLARATION

I, *Edosa Getachew*, hereby declare that the thesis work entitled “*Motor Insurance Industry and Its Role in Road Safety in Ethiopia*” submitted by me for the award of Master of Science Degree in Finance and Investment from Mekelle University, Mekelle is my original work and it has not been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any other University or institution.

Place: Mekelle, Tigray

Signature: _____

Date: June 2014

CERTIFICATION

This is to certify that the thesis work entitled “*Motor Insurance Industry and Its Role in Road Safety in Ethiopia*” is a genuine work of **Edosa Getachew** who carried out this research under our guidance. We further certified that to the best of our knowledge the work reported herein does not form part of any other project report or dissertation on the bases of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Place: Mekelle, Tigray

Date: June 2014

Signature: _____

Principal Advisor: Aregawi Gebremichael (A/ Prof.)

Department of Accounting and Finance

College of Business and Economics

Mekelle University

Ethiopia

Signature: _____

Co-advisor: Nigus Abera (MSc)

Department of Accounting and Finance

College of Business and Economics

Mekelle University

Ethiopia

ACKNOWLEDGEMENTS

It is the grace, mercy, charity, forgiveness, help and kindness of the almighty God- Jesus Christ that made me still alive, achieve this success and strength and to go through all the difficult time. So, all praise is to the Almighty God, without whom I'm not a man today!

Many people have generously contributed to the materialization of this research. First of all, I would like to express my sincere gratitude to my Advisor Aregawi G/Michael (Assistant Professor) and my Co-Advisor Nigus Abera (MSc) for their unreserved support, patience, sharp intellectual inspirations and for always devising solutions to get me through right from the inception until the completion of this paper.

This research manuscript has also been trivial without a commitment, material and moral (cash and non-cash) supports I have received from my family, friends nearby and class mates. So, my earnest gratitude and gratefulness goes to my family members, especially to my Mom Aadde Magartu Chasa for her unreserved encouragement and believing in me since my childhood and for telling me that I can do it no matter what. My special gratitude also goes to my father Obbo Getachew Taera, who suffered a lot from road traffic accident and hospitalized for around half a year during the course of my study, and my brothers and sisters: Ebise Getachew, Gamachis Getachew, Abdi Getachew, Abdisa Getachew, Yadate Getachew and Gamachis Tarfa (my role model). It is because of their subtle fostering encouragement and inspiring example that I am now the academically and professionally qualified person.

It is shame on me to overlook the helping hands Meti Takala and Workinesh Kebede (with her husband Tariku Raga) has extended to me – they are just more than friends! I am also grateful to the companies that are included in this study for their willingness and for the information they provided me, especially Nib Insurance Company (really they are like a bee), Awash Insurance Company (for facilitating and inviting me to attend a training on traffic safety) and Oromiya Insurance Company.

I would like to forward my sincere thank to Mekelle University and Aksum University for financial and academic support of my work and all the teachers who raised me up starting from grade 1, for their academic influences that helped me successful in my endeavor.

My appreciation also goes to all scholars and researchers who are frequently cited throughout this study for their endeavor on article writing and posting the results of their efforts on internet access freely; without their contribution, it would have been impossible to accomplish this study.

Finally; I would also like to thank all my friends and well-wishers, specifically whose best wishes encourage me all the time and people who in their own ways contributed to the successful completion of this research but could not be listed here due to the limitation of space. Nevertheless, I acknowledge their efforts and contribution and extend my utmost thanks. Speechless- you did a good stuff Guys.

ABSTRACT

Insurance is about more than just compensating for loss as it is a highly effective mechanism for assessing, managing and reducing risk. By helping customers face up to and manage risk effectively, insurance is an invaluable part of modern society and the motoring experience. Motor insurance is a contract between the insured and the insurance company that protects against financial loss. Motor insurance is a difficult class of business to manage and the annual report from the insurance companies shows the Ethiopian motor insurance industry, that is relatively underdeveloped in comparison to that of other African countries, is highly suffering from the higher motor claims as a result of increment in cost of materials and payment for the victims. But, with the appropriate strategies and operations in place, the rewards are there. Thus, the study attempted to identify how the motor insurance industry participates in road safety management activities and factors influencing its involvement in road safety. Both primary and secondary data sources were consulted whereas questionnaire and interview were used as a method of data collection from the target respondents of 8 insurance companies based on purposive sampling. Descriptive method of data analysis using SPSS v.20 was employed and presented in the form of tables, charts, percentages and frequencies. As a result, the research output helps in particular the industry and road safety management program and the public in general. It is revealed that legislation, enforcement, promotion, financing and research were identified as the way motor insurance industry (MII) involves in road safety management (RSM). Promotion and financing role were not actively going as it is expected to be. Among others, increment in traffic accidents that resulted in increment in claims was identified as the driving factor to involve in road safety management; whereas exclusion from road safety advocacy committee and lack of enthusiasm were the factors hindering active participation in road safety. In general, Motor Insurance Industry's role in road safety should be recognized as it is very important in reducing road traffic accident by supporting road safety management. Consequently, National Road Safety Advocacy Committee (NRSAC) should include Motor Insurance Industry and the industry should promote as well as allocate funds and make known to all to benefit itself and the public.

Key Words: Factors affecting involvement, Motor Insurance Industry, Road Safety, Role, RTA in Ethiopia

ACRONYMS

ADB	Asia Development Bank
AIC	Awash Insurance Company
APEC	Asia Pacific Economic Cooperation
BACSA	Business Against Crime South Africa
CASR	Center for Automotive Safety
CEA	Comité Européen des Assurances (European Insurance and Reinsurance Federation)
CTP	Compulsory Third Party
CTPL	Compulsory Third party Liability
ECA	Economic Commission for Africa
ETB	Ethiopian Birr
GC	Gregorian calendar
GDP	Gross Domestic Product
IAG	Insurance Asia Group
IFO	Insurance Fund Office
LIC	Low Income Countries
MII	Motor Insurance Industry
MTPL	Motor Third Party Liability
NBE	National Bank of Ethiopia
NGO	Non Governmental Organization
NRSC	National Road Safety Council
OIC	Oromiya Insurance Company
PAYD	Pay as You Drive
PHYD	Pay How You Drive
RSM	Road Safety Management
RTA	Road Traffic Accident
RTI	Road Traffic Injuries
SCERT	State Council of Educational Research & Training
UK	United Kingdom

UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
WB	World Bank
WHO	World Health Organization

TABLE OF CONTENTS

DEDICATION	I
DECLARATION	II
CERTIFICATION.....	III
ACKNOWLEDGEMENTS	IV
ABSTRACT.....	V
ACRONYMS	VI
TABLE OF CONTENTS.....	VIII
LIST OF TABLES	XI
LIST OF FIGURES	XII
CHAPTER ONE	1
INTRODUCTION.....	1
1.1. BACKGROUND OF THE STUDY	1
1.2. STATEMENT OF THE PROBLEM	3
1.3. OBJECTIVES OF THE STUDY	5
1.3.1. General Objective.....	5
1.3.2. Specific objectives.....	5
1.4. SIGNIFICANCE OF THE STUDY	6
1.5. SCOPE (DELIMITATION) OF THE STUDY	6
1.6. LIMITATION OF THE STUDY	6
1.7. ORGANIZATION OF THE PAPER	6
CHAPTER TWO	8
REVIEW OF RELATED LITERATURE.....	8
2.1.2. Motor Insurance (Auto Insurance)	11
2.1.3. Types of Insurance That Intersect With Road Use.....	12
2.1.4. Compulsory Third Party Liability Insurance (CTPLI).....	13
2.1.5. Road Traffic Accident (RTA) and Road Safety.....	13
2.1.6. Road Traffic Accident (RTA) in Ethiopia	16
2.1.7. Role Of Motor Insurance Industry In Road Safety	17
2.1.8. Compensation	18
2.1.9. Promotion and Sponsorship	18
2.1.10. Incentives.....	19

2.1.11.	Financing Road Safety	20
2.1.12.	Vehicle Insurance Levies.....	21
2.1.13.	Private Sector Sponsorship and Funding.....	22
2.1.14.	Why Is Funding From The Insurance Industry Needed?.....	22
2.1.15.	Road Safety Publicity and Education	23
2.1.16.	Auto Insurance Pricing Opportunities	24
2.1.17.	Distance-Based Vehicle Insurance.....	26
2.2.	EMPIRICAL STUDIES	26
2.3.	CONCEPTUAL FRAMEWORK OF THE STUDY	32
CHAPTER THREE.....		33
RESEARCH METHODOLOGY		33
3.1.	STUDY DESIGN.....	33
3.2.	DATA TYPE AND SOURCE.....	33
3.3.	DATA COLLECTION TECHNIQUES/ DATA COLLECTION INSTRUMENTS.....	33
3.5.	DATA PROCESSING AND ANALYSIS	35
CHAPTER FOUR.....		36
DATA ANALYSIS AND DISCUSSION		36
4.1.	DESCRIPTIVE STATISTICS AND DISCUSSION	36
4.1.1.	Demographic characteristics of respondents.....	36
4.1.2.	Back Ground Information of Respondents Age.....	37
4.2.	HISTORY OF MOTOR INSURANCE IN ETHIOPIA.....	39
4.2.1.	Motor Vehicle Insurance Coverage in Ethiopia.....	40
4.3.	MOTOR INSURANCE INDUSTRY AND ITS ROLE IN ROAD SAFETY	40
4.3.1.	Motor Insurance Industry's Involvement in Road Safety Management.....	41
4.3.2.	Legislation	42
4.3.2.2.	Effect of Traffic Accident on Motor Claims.....	45
4.3.3.	Enforcement	46
4.3.3.1.	Requirement of Third Party Motor Insurance in Ethiopia	46
4.3.4.	Promotion	48
4.3.5.	Road Safety Management (RSM) Promotion by Motor Insurance Industry (MII).....	50
4.3.6.	Having Police Record to Calculate Premium	52
4.3.7.	Research	53

4.3.7.1.	Data Computerization, Sponsoring and Providing Data for Research on Road Safety	53
4.4.	FACTORS INFLUENCING MOTOR INSURANCE INDUSTRY'S INVOLVEMENT IN ROAD SAFETY MANAGEMENT	55
4.5.	Training Drivers' and Doctors to promote Road Safety Management.....	57
4.5.1.	Training Doctors to promote Road Safety Management	57
4.5.2.	Training Drivers' to promote Road Safety Management	57
4.5.2.1.	Importance of Training	58
4.5.2.2.	Training Quality	60
4.5.2.3.	Ways of Reducing RTA and Coping Up Road Safety Tools	60
CHAPTER FIVE.....		63
CONCLUSIONS AND RECOMMENDATIONS.....		63
5.1.	CONCLUSIONS	63
5.2.	RECOMMENDATIONS	65
REFERENCES.....		68
APPENDICES		75
Appendix 1: Questionnaire		75
Appendix 2: Interview		78

LIST OF TABLES

Table 4.1	Back Ground Information of Respondents Sex	36
Table 4.2	Number of vehicles in Ethiopia	39
Table 4.3	The Way MII Involves in RSM	41
Table 4.4	Amount of Money for Third Party Insurance	47
Table 4.5	Ways of Promoting Road Safety by Motor Insurance Industry	50
Table 4.6	Getting Police Record to Calculate Premium	52
Table 4.7	Importance of Training	59
Table 4.8	Quality of Training	60
Table 4.9	The Way MII Reduces RTA and cope up with RSM	61

LIST OF FIGURES

Figure 1.1	General Outline of the Study	7
Figure 2.1	Distance Based pricing	26
Figure 2.2	Conceptual Framework	32
Figure 4.1	Age of the respondents	37
Figure 4.2	Back Ground Information of Respondents Educational Level	38
Figure 4.3	Background Information of respondents work experience	38
Figure 4.4	Trend of RTA in Ethiopia	43
Figure 4.5	Motor Insurance Industry's Claim status	45
Figure 4.6	Claim Data Computerization by MII	53
Figure 4.7	Providing Data for Researches on road safety	54

CHAPTER ONE

INTRODUCTION

This chapter presents an overview of the theoretical justification and the rationale for studying the role of motor insurance industry in road safety in Ethiopia. It starts from the theoretical frame work which serves as backgrounds of the study followed by the problem statement objectives, significance, scope, and conceptual framework of the study and finally highlight organization of the overall study.

1.1.BACKGROUND OF THE STUDY

People seek security. A sense of security may be the next basic goal after food, clothing, and shelter. An individual with economic security is fairly certain that he can satisfy his needs (food, shelter, medical care, and so on) in the present and in the future (Anderson & Brown, 2005). Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. Insurers also have an incentive to control losses, which is a significant social benefit (Brainard, 2008). Insurance, as Haddrill (2006) has stated, is about more than just compensating for loss. It is a highly effective mechanism for assessing, managing and reducing risk. By helping customers face up to and manage risk effectively, insurance is an invaluable part of modern society and the motoring experience.

Insurance is a means of reducing hardships and transferring risks. So as to cover future major expenses due to illness, death, accident, or theft, insurance lets individuals to pay a little now. Insurance Australia Group (IAG, 2004), by taking out the worry from the people's lives; insurance plays a significant role in serving the whole community. Haddrill (2006) also confirmed that insurance enables individuals and businesses to transfer the burden of risk. Premiums for similar risks are pooled, and the costs of valid claims arising from these policyholders are paid for out of this collective pool. In addition, Anderson and Brown (2005) claimed that insurance is an agreement where, for a fixed payment called premium, the insurer agrees to pay the policyholder or his designated beneficiary a defined amount (the claim payment or benefit) upon the occurrence of a specific loss. The contribution of insurance to an economy's growth and efficiency is not the only entry point into its role in development (Brainard, 2008).

Road transportation is one of the common means of commutation; hence it has embedded morbidity and mortality risks in most countries (Blincoe, 1996). The invention of the automobile in the late nineteenth century created a need to protect motorists from the potentially enormous financial loss from operating a car (Onafalujo & Kunle, 2011).

Motor insurance is one solution to manage risks posed by the road transport industry and a means to ameliorate damages arising from accidents and other mishaps. With compulsory insurance in place financial risks arising from the operations of vehicles can be better managed. Damage to personal property (such as to vehicles and personal items), public property (road signs, lights and other infrastructure) and personal injuries arising from accidents can be managed without imposing an undue burden on private or public persons and organizations.

Due to this motor vehicle insurance has developed into an important form of contract arising out of or in connection with the use of motor vehicles including third party. Motor insurance policy may also be affected to provide cover against loss or damage to the third party arising from the use of a vehicle (Falegan, 1991).

Motor third party insurance is mandatory in most countries around the world, which is an expression of contemporary trends in securing compensation of victims of traffic accidents. For this reason the functioning of this product is relevant to many subjects: vehicle holders who pay premium, drivers covered, injuries and damaged parties seeking for compensation as well as the state which impose the obligation and decides about shape of system and its rules (Kwiecień & Poprawska, 2011). Likewise, motor third party liability insurance has been made compulsory in our country, Ethiopia since September, 2011. The policy plays the critical role in pooling the risks of homogeneous loss exposures hence minimizes the financial risks that might be happen if the driver or owner of the insured vehicle cause an accident on the third party regardless of the fault who ever commit.

The Ethiopian Insurance Industry is suffering from the higher claims and administrative costs due to the growing traffic accidents and ever increasing costs of spare parts and labor, particularly with respect to motor business class (OIC, 2010/11, 2011/12 & 2012/13).

However, even though motor insurance is a difficult class of business to manage but, with the appropriate strategies and operations in place, the rewards are there (Ernst & Young, 2011).

As the basic objective of insurance systems is to compensate for losses incurred, the motor and personal injury insurance sectors have a potentially key role in ameliorating the consequences of those casualties and crashes not avoided. Their economic significance in reducing payouts, by a reducing the number of casualties and crashes is great (Aeron-Thomas, 2002). Since Insurance and road safety are natural allies; insurers are always looking for new ways to reduce the number and severity of collisions on the road, both as part of their commitment to social responsibility and of their efforts to lower claims rates (CEA, 2009). Motor Insurance industry can involve in road safety in various ways. From these, according to the analysis by Aeron-Thomas (2002), the involvement of the Low Income Countries (LIC) insurance industry in road safety was considered in five ways: 1) Pricing incentives to encourage safe driving 2) Compensating road traffic casualties 3) Participating in policy making and advocacy 4) Funding and sponsorship for prevention efforts and 5) Research.

1.2. STATEMENT OF THE PROBLEM

According to Fronsco (2011), young people in the world were killed by road trauma, the leading killer. Whereas a report by United Nations (UN, 2011) showed an estimated 1.3 million people lose their lives and millions more are disabled in often preventable road crashes every year, predominantly in low-income and middle-income countries. This is the leading worldwide cause of death for children, adolescents, and young adults aged 10-24. Nearly half of those dying on the world's roads are "vulnerable road users": pedestrians, cyclists and motorcyclists. According to National Road Safety Council (NRSC, 2011), developing economies, particularly, suffer economic trouble enormously from the yoke of fatalities and road traffic injuries. Injuries from road traffic are the main health problem of the public and a principal cause of injury and death in the world (WHO, 2008). On top of this, the data from "Commission for Global Road Safety 2010-2020", reveals that road traffic fatalities are forecasted to increase to more than 1.9 million over the next ten years from a current level of more than 1.3 million.

According to the Economic Commission for Africa (ECA, 2011), around the world more than 1.2 million people die every year by road crashes. 65% of deaths involve pedestrians, of which children death account 35 percent. Each year, around 50 million are injured and a lot disabled. In most countries, the economic cost imposed is huge and it takes between 1 to 3 % of the GDP's shares. The greater part of these deaths – about 70 % – occurs in developing countries.

In line with this, according to UN Decade of Action for Road Safety 2011-2020, road crashes are the number one killer of young people worldwide and meeting road safety goal could save up to five million lives, and prevent up to 50 million serious injuries. Over a million people die every year on the world's roads, and fifty million more are injured. The human cost is profound-unimaginable suffering and grief. The economic cost is a staggering \$100 billion a year in developing countries only.

National Road Safety Council (NRSC, 2011), being public good, road safety comprises many dimensions which include legislation, funding, resource allocation, promotion of road safety, monitoring, evaluation, research and development, knowledge dissemination and coordination. These functions are expected to be primarily undertaken by the public, but to achieve the desired results; it needs to be carried out in partnership with civil society and businesses. Reductions in the incidence and severity of road related trauma is of paramount importance to society, aimed at reducing the personal and economic burden to injured people and flow-on impact to families and the broader community (Fronsko, 2011).

Now a day itself, not a day goes by without dramatic news of serious car, bus or truck crashes making headlines somewhere in the world. In Ethiopia, as the study by Persson (2007) shows, road traffic accidents are a huge public health and development problem. Its situation requires immediate decisions and actions in order to curb the growing problem. Otherwise, it will get worse from day-to-day as motorization and population increase rapidly. According to Yayeh (2003), road accidents and their consequences cannot be fully eliminated, but they can be reduced drastically. Reduction in accident rates comes as a result of actions on many fronts, including more disciplining of the drivers and pedestrians, safer vehicles, and safer roads through education, engineering, and enforcement.

To suppress the problem, it needs efficient operation of different sectors & or stakeholders. More importantly, Fronsco (2011) confirmed that the effective and efficient operation of insurance markets plays a vital role in improving road safety outcomes. In supportive of this idea, Tooth (2012) claimed that an insurance based solution involving appropriate financial incentives for safe road use has significant potential to provide substantial benefits to all road users. But in Ethiopia, even though the determinant factors are studied, the significance of insurance in road safety is not studied yet. As an example, Persson (2007) in his study attempted to identify the determinant factors for road traffic in the country, but has not addressed the role of motor insurance in Road safety in Ethiopia. Again, Aeron-Thomas (2002) in his study stated that Ethiopia was not included in the study. So this research is the first attempt to address on how to cram the road traffic accident taking Motor Insurance Industry as a means in Ethiopia. Therefore, the researcher is initiated to assess whether insurance companies in Ethiopia are promoting road safety and supporting interventions. How they can participate in reducing the risk and the consequences of road trauma so as to protect the lives of millions and safeguard the human resource required for the development of the country was also investigated. To the best knowledge of the researcher, there is no single study done so far on such issues in Ethiopian MII, especially on the role of MII in road safety in Ethiopia. Hence, the researcher considers that this paper fills the research gap that has been observed, and yet not addressed by those who did their studies on road traffic accidents.

1.3.OBJECTIVES OF THE STUDY

1.3.1. General Objective

This study concentrated on identifying motor insurance industry and its role in road safety in Ethiopia. Road safety in this study means preventing, reducing and compensating RTA.

1.3.2. Specific objectives

With the above general objective in mind, important objectives are to:

1. Describe the motor insurance practices in Ethiopia.
2. Examine how the motor insurance industry involves in road safety in Ethiopia.
3. Analyze the factors influencing motor insurance industry's involvement in road safety.

1.4.SIGNIFICANCE OF THE STUDY

The primary objective of this research is to assess how motor insurance prevent the risk of being victimized with road accident, reduce the probability of being trapped by traffic jamming and compensate the road trauma in the country. Insurance companies will take lessons from this research and helps them to relook at their plans and objectives on road safety. Furthermore, the research helps the stakeholders to understand how motor insurance contribute to road safety, such that great attention and participations on any research based on road safety issues will be supported efficiently. In addition, it may also be a supporting document as stepping stone for a research on the title.

1.5.SCOPE (DELIMITATION) OF THE STUDY

This study is delimited to the assessment of the role of motor insurance industry in road safety in Ethiopia. This can be seen from five perspectives: pricing incentives to encourage safe driving, compensating road traffic casualties, participating in policy making and advocacy, sponsorship for prevention efforts and research.

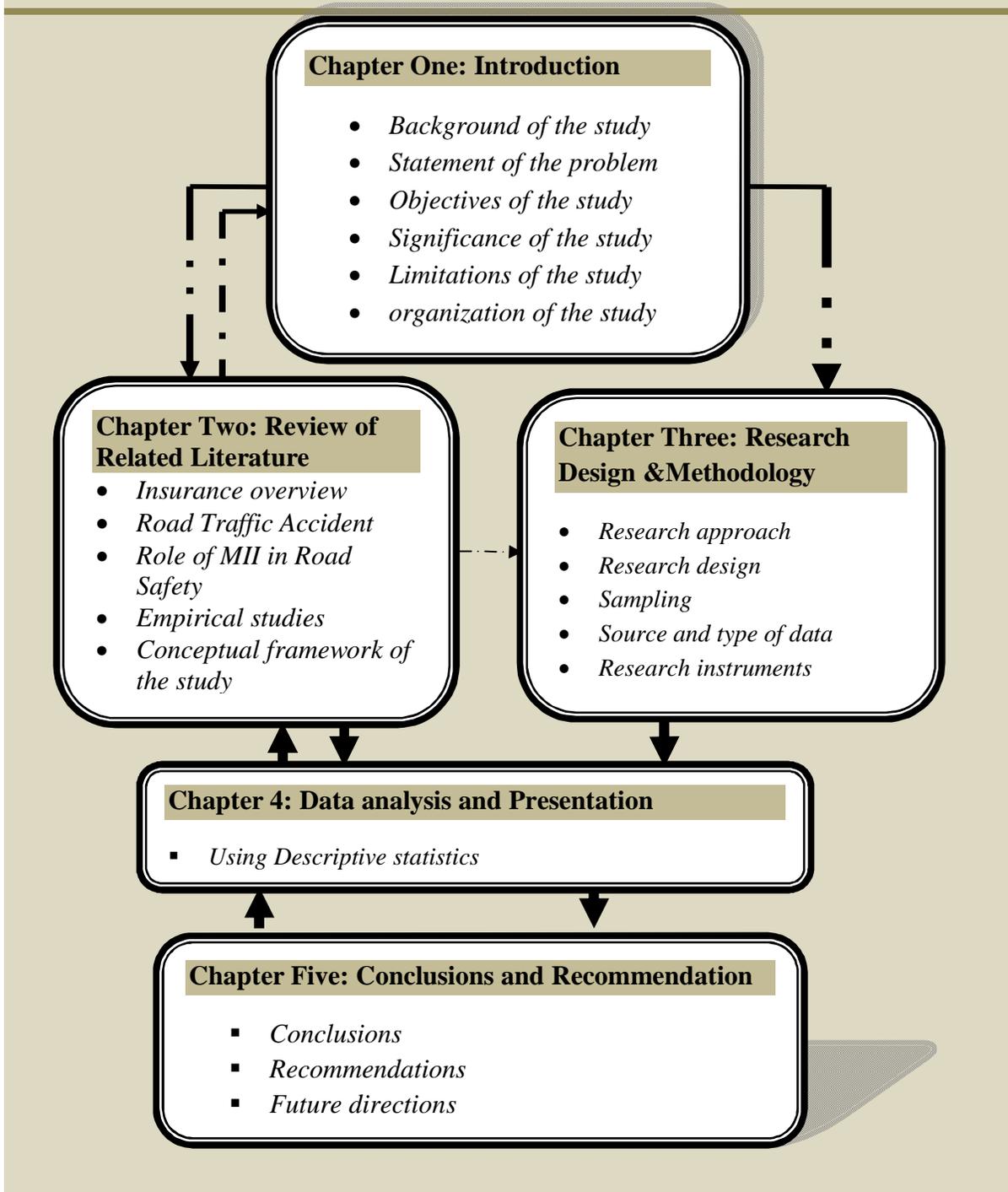
1.6.LIMITATION OF THE STUDY

This study has encountered problems like absence and shortage of fully organized data and low level of willingness from the respondents included in the study were really cumbersome.

1.7.ORGANIZATION OF THE PAPER

The paper is organized in five chapters. The first chapter is an introductory part, which contains the background, problems, objectives, the research questions, methodology, and limitation of the study. Chapter two highlights review of studies on road safety and motor insurance. Chapter three elaborates research methodology. Chapter discusses data analysis and presentation and finally, chapter five presents a conclusion that was drawn from the analysis and recommendations based on the conclusions.

Figure 1.1: General Outline of the Study



Source: *Researcher's Own Design (2014)*

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Although different researches on Insurance Company is widely applauded, research studies on the Motor Insurance Industry, regarding the role of motor insurance in road safety are scarce in Africa in general and particularly in Ethiopia. Therefore, the review under this section includes supportive and empirical literatures on motor insurance industry's position in road safety all over the globe in general and particularly in Africa and draws its role to Ethiopia. The objective of the review is to throw light on the topic and assess the findings of earlier related studies so that gaps could be identified and then filled. The review touches published and unpublished sources that are related to the topic.

2.1.THEORETICAL REVIEWS

2.1.1.INSURANCE: AN OVERVIEW

Human life and belongings are filled with risk (SCERT, 2006). Every human being is faced with the possibility that one or more of the hazards which form part of life will sooner or later befall him and which may cause him pecuniary loss. This misfortune is uncertain as to time or period it will occur and this among others include: fire outbreak, accident or even death. It could be seen that all those are beyond human control as their occurrence cannot be controlled by the individual. For instance, the family bread winner knows it is beyond his control to prevent death from coming his way (Timothy, 2011).

Analogous to the above, rapid urbanization in developing countries presents tremendous challenges to the transport systems of expanding cities if they are to meet the access and mobility needs of their communities and provide them with a sustainable, safe and healthy environment. A report of World Bank (2002) showed that urban populations in developing countries will grow at more than 6% per annum and that, within generation, more than a half of the developing world's population, and a third of its poor, will live in cities.

As the growth of registered vehicles always outnumbers population growth and new roads are constructed, travel risks and traffic exposure grow at a much faster rate with rising motorization and expanding road network (Sensarma, Balani, & Rawat, 2011). Human

beings face various types of risk connected with several activities in the day to day life. Subsequently human beings have been searching for methods to tackle or reduce these risks. From the best methods to reduce risks, Insurance stands first (SCERT, 2006).

Insurance policies originated in 17th century London coffee houses which became the place for sharing information on agreements of pooled risks between merchants, ultimately leading to the formation of Lloyds of London. The basic purpose of insurance is to protect against loss (IAG, 2011; Ryskamp, 2010). Insurance began in the European shipping industry as a way to protect both merchants and ship owners from loss. At the time, shipping by sea was the fastest way to transport goods, but it was also dangerous, and ships and their cargo were frequently lost. To protect themselves against these losses, merchants and ship owners contracted with insurers, who agreed to pay a specified amount of money to the merchant or ship owner in case the goods or ship were lost (Ryskamp, 2010). Insurance, in law and economics, is a form of risk management primarily used to hedge against the risk of a contingent loss. It is, on the other hand, the equitable transfer of the risk of a loss, from one entity to another, in exchange for a premium (Squidoo, 2013).

Insurance is an intricate economic and social device for the handling of risks to life and property. It is social in nature because it represents the various co-operations of various individuals for mutual benefits by combining together funds to reduce the consequence of similar risk. Simply put, insurance is the placing back of a person who has suffered a loss in the same position he was before loss occurred. It aims to eradicate the consequence of a loss by not allowing the insured to suffer the consequential loss (Timothy, 2011). Insurance is beneficial to individuals in many ways. Individuals, society and business benefit from scientifically calculated risk and distribution of financial loss. The premium collected by insurer is utilized for meeting their expenses and claims. The balance is invested in profitable industries. Thus, insurance speeds up industrialization. Hence, development of insurance is a symbol of development of industry, business and commerce, which, in turn, provides employment opportunities (SCERT, 2006). Therefore, insurance is essential for a viable economy. Businesses and individuals would be unable to take risks and protect their assets devoid of it. It allows, furthermore, the victims of accidental losses to recover financially and helps households manage their finances in the face of death and disability and its availability

encourages individuals to acquire assets and invest for the future (UNEP, 2007). Insurance enables individuals and businesses to transfer the burden of risk. Pooling premiums for similar risks, it pays the costs of valid claims arising from these policyholders. Insurers organize the pooling arrangement and provide additional capital backing in case claims exceed premiums (Haddrill, 2006). More specifically, the advantage of obtaining insurance is that it allows the pooling of risks and reduces the probability of one party bearing the entire cost of a loss (IAG, 2011).

Exclusive of insurance, businesses and individuals would be unable to take risks and protect their assets. Since it removes the fear of catastrophic losses from fire and natural hazards and allows businesses to budget without unexpected variations in expenses, thus helping allocate funds for growth and development. It can also directly underpin innovation by accepting certain risks that could deter entrepreneurs. For individuals, the availability of insurance encourages them to acquire assets and invest for the future instead of simply consuming their income (UNEP, 2007).

Insurance is a contractual agreement between an insurance company and an insured, which, in exchange for a premium, provides financial protection for risks associated with driving or owning an automobile (Hamm, 2008). By purchasing insurance, individuals and firms can indemnify themselves against the financial effects of adverse events that may be partially or fully caused by themselves or others. Insurance thus ensures individuals are compensated, even though an individual may be responsible for causing the loss and even though a tort process may be required to extract the costs of the loss from that individual (Howell, Kavanagh &Marriott, 2002).

According to CEA (2006), the insurance industry prop up economic growth and structural development through the subsequent channels: reduces the capital firms need to operate; fosters investment and innovation by creating an environment of greater certainty; contribute to the modernization of financial markets and facilitate firms' access to capital as institutional investors; promotes sensible risk-management measures through the price mechanism and other methods and contributes to responsible and sustainable economic development; fosters stable consumption throughout the consumer's life; and insurers are

solid partners for the development of a workable supplementary system of social protection, in particular in the field of retirement and health provision.

In an attempt to improve the accident risk of novice drivers, insurance companies in the United Kingdom (UK) have recently introduced a scheme where additional training (e.g., motorway driving, advanced driver training, and defensive driving) results in a reduction of the insurance premium cost. The insurance industry is also a good source for accident data and costs. The total cost of the economic consequences of road accidents often needs to be calculated before governments will begin to invest in road safety. Insurance companies can provide much needed data for accident costing. In a few countries, insurance claim data have been found to be more comprehensive than police data (ADB, 2003).

2.1.2. Motor Insurance (Auto Insurance)

Automobile insurance is a contract between the insured and the insurance company that protects against financial loss. Auto policies contain a variety of coverage's that can be purchased depending upon the needs and wants of the consumer. Insured agree to pay the premium, and in return, the insurance company agrees to pay for certain expenses as defined in the policy. Having the right insurance coverage may prevent the insured from suffering a large financial loss in the event of an automobile accident (Commonwealth of Pennsylvania, 2013).

Risk transfer is a mechanism that allows an insurer to protect its capital and stabilize its results from underwriting risk. From a motor insurance perspective, this capital is exposed to the risk of an adverse frequency or severity of claims in any one period. Motor insurance is generally measured non-life insurers' strongest class of business in terms of premium volume (Gönülal, 2009). Motor insurance, despite continuous product development, are still in most European countries the predominant group of products sold by non-life Insurers. In the countries of Central and Eastern Europe, it accounts 2/3 of the insurance written premiums (Poprawska & Kwiecień, 2011).

There is an active and competitive motor insurance market for people of all ages, with up to seventy providers competing for business (Haddrill, 2006). Motor insurance is a difficult class of business to manage but, with the appropriate strategies and operations in place, the

rewards are there (Ernst & Young, 2011). The environment in motor insurance today is dominated by fierce competition for market share in some developing countries. The lower prices not only increased clients' price sensitivity but have also raised their expectations of service, and it is witnessed that an unprecedented tendency on the part of clients to switch insurers on the basis of such criteria. However, one aspect is affecting everyone concerned: claims expenditure is rising all the time (Gönülal, 2009).

The purpose of insurance is to provide sufficient revenue to compensate the minority who suffers loss. Most countries require those responsible for death or injury to compensate the victim, or the victim's family. Since few people can afford to do this from their resources, they either choose or are required by legislation to insure against the risk of a claim. Most countries require at the very least compulsory third party insurance, although there are wide variations in compliance. In developing countries vulnerable road users and public transport passengers account for most road casualties and are the ones who should benefit most from third party insurance (Rizavi, 2011).

2.1.3. Types of Insurance That Intersect With Road Use

Various types of insurance can be utilized by vehicle owners/operators and road users, and often are relied upon as a first resort in the event of an incident or event causing property damage or injury (Fronsko, 2011).

Murcko (2013) defined Car insurance as it is an absolute necessity for anyone who drives a car. Even ignoring the fact that some types of car insurance are mandated by law, coverage is essential: the potential costs surrounding an accident, whether they be repair/replacement costs of the cars or other property, or medical costs of the victims, are simply too huge to exercise the risk of being without adequate coverage.

There are four types of motor vehicle insurance according to Francis (2013). Compulsory Third Party (CTP) Insurance: It does not provide cover for any damage to the vehicle and therefore other forms of motor vehicle insurance should also be purchased. Comprehensive Insurance: covers damage to vehicles, theft of vehicles, collision, malicious damage and weather damage. Depending on the policy, it can cover damage caused to other vehicles. Fire and Theft Only: is a limited form of insurance that only covers for fire damage to, and

theft of, vehicles. It does not cover collision damage to vehicles and Third Party Property only: provides cover for vehicles damaged by the policyholder's vehicle. It does not provide cover for the policyholder's own vehicle. This product is generally only taken out by consumers with a low value vehicle, protecting themselves against damage to other motorists.

2.1.4. Compulsory Third Party Liability Insurance (CTPLI)

Amongst most international jurisdictions, General Insurance is utilized to cover motor vehicle property damage and is often a discretionary purchase. Casualty: Auto Liability or Compulsory Third Party (CTP) Insurance and Workers Compensation is used is utilized to cover personal injury and is a generally a compulsory form of insurance (Fronsko, 2011).

The compulsory nature of MTPL insurance provides for a minimum statutory limit, which should, in most countries, be sufficient to indemnify the insured against loss. It is a financial protection scheme built to thwart any grievance that third parties could face, due to lack of solvency of first party who caused bodily injury or property damage subsequent to any event related to a Car Accident. It ensures that damage to third party health and property caused by an accident for which driver and/or owner of the car were responsible is covered. In MTPL, classically, guarantee funds are created to compensate persons who suffer bodily injury caused by hit-and-run drivers and to pay claims for property damage caused by uninsured motorists (Gönülal, 2009).

2.1.5. Road Traffic Accident (RTA) and Road Safety

Road transportation safety is becoming a critical issue since road accidents directly cause loss of life, personal suffering and property damages. Indirectly, it impacts the efficiency and performance of the transportation network, and affects the quality of life of all residents (APEC, 2004).

Rapid urbanization in developing countries presents tremendous challenges to the transport systems of expanding cities if they are to meet the access and mobility needs of their communities and provide them with a sustainable, safe and healthy environment. According to World Bank (2002), urban populations in developing countries will grow at more than 6%

per annum and that, within generation, more than a half of the developing world's population, and a third of its poor, will live in cities.

With rising motorization and expanding road network, travel risks and traffic exposure grow at a much faster rate, as the growth of registered vehicles always outnumbers population growth and new roads are constructed. Today road traffic injuries are one of the leading causes of deaths, disabilities and hospitalizations with severe socioeconomic costs across the world (Sensarma, Balani, & Rawat, 2011).

Road traffic injuries (RTIs) represent a leading and increasing contributor to regional and global disease burden. RTIs are projected to become the 3rd largest contributor to global disease burden by 2020 (WHO, 2004). Most of the projected increase in RTIs will occur in low- and middle-income regions of the world, due to the rapid growth in motor vehicle numbers increasing exposure to risk factors such as speed and alcohol, and exacerbated by inadequate enforcement of traffic safety regulations and public health infrastructure (Ameratunga, Hyder & Norton, 2006; Nantulya & Reich, 2002; WHO, 2004).

A Road accident is a serious problem throughout the world, in social, health and economic terms. It is said that road accidents commonly is the second largest cause of deaths for economically energetic people (5 to 44 years) in numerous countries, and is considered to be of endemic proportions by the WHO. Between 50 and 200 people are killed each year for each million inhabitants in most developed as well as developing countries (Wetteland & Lundebye, 1997).

The human suffering for victims and their families of road traffic related injuries is immense. There are endless repercussions: families break up; high counseling costs for the bereaved relatives; no income for a family if a breadwinner is lost; and thousands of money to care for injured and paralyzed people (WHO, 2004). Many times, you have seen news of severe road accidents swarming the social media, radio stations and TV channels. In fact, barely a week passes without reading or hearing news of accidents on African roads. No African country can claim immunity to road accidents (Afro Autos, 2013).

Road safety is defined as the absence of crashes, injuries and fatalities. The term "safety" means there are no incidence of accidents. Although undesirable, crashes and fatalities are

inevitable incidents of the transportation system. The road transportation is cursed with road accidents. A substantial accident risk is always present in the development of transport facilities. Road crashes are a growing worldwide problem. The road systems all over the world are getting more and more jam-packed and unsafe day by day. RTA is more often than not defined as “accident which takes place on the road between two or more objects, one of which must be any kind of a moving vehicle.” It can be called as perennial disaster, as they have claimed far more lives than any of the natural disasters. A common saying in the area of traffic safety is that “accidents are not natural but they are caused” (Desai & Patel, 2011).

13 people die every hour due to road accidents around the world (Desai & Patel, 2011). Road crashes are the second leading cause of death for the 5 to 44 age group in African countries and they exact a heavy toll on African economies. It is underscored that the high crash incidence is attributed to poor road networks, inadequate road signage, limited knowledge on road safety, poorly enforced (ECA, 2011).

In absolute numbers, the road-related mortality rate per capita in Africa is the highest in the world at 28.3 deaths per 100,000 at an estimated cost of US\$ 3.7 billion. Considering, among other factors, that Africa has only 4percent of the world vehicle fleet, the rate of return on investment to reduce crashes is very high in Africa, and there is clearly a strong justification to identify and implement efficient crash reduction measures (WB, 2011).

The Government alone cannot tackle road safety problems. Active involvement of all stakeholders to promote policy reform and implementation of road safety measures is a must. Addressing road safety in a comprehensive manner necessitates the involvement of multiple agencies/sectors such as health, transport and police. Therefore, a coordinated response to the problem is imperative as the experience in developed countries indicates that deaths and injuries can be prevented through affirmative action (IMRTH, 2011).

International experience shows that two aspects of road safety make it difficult to manage road safety effectively. It is because, first, road safety involves a great number and variety of organizations to cover all aspects of road safety issues. Secondly, the different organizations do not usually have road safety as their primary objective. Hence, road safety activities often get neglected. In order to overcome these difficulties, local authorities should make

maximum use of their influence in support of their influence in support of road safety promotion. Therefore, they should ensure co-ordination between the various disciplines, institutions and organizations involved (Lacroix & Silcock, 2004).

It is possible to reduce RTAs rate and severity by adopting and enforcing proper safety measures. Stringent implementation of road safety measures reduces road accident injuries and fatality (Desai & Patel, 2011). The success of any road safety action program is dependent on 'Shared Responsibility'. Small contributions in many different areas can offer significant reductions to motorcycle crashes, injuries and deaths (Hardy, 2009). Road Safety is everyone's responsibility. All need to take responsibility and pride in how to behave on the road as pedestrians, motor cyclists, cyclists, drivers and passengers (Dempsey, 2007).

Stabilization and reduction of Africa's acute road safety problems can be achieved through development and implementation of focused, pragmatic, bold and cost-effective mitigation strategies (WB, 2011).

2.1.6. Road Traffic Accident (RTA) in Ethiopia

Motor Vehicle Accidents (MVA) have already become one of the ever increasing public health problems, particularly for developing countries. The same is true for Ethiopia too.

Ethiopia has one of the highest road-accident rates in the world (IRIN, 2011). It disclosed that as a minimum 70 people die in every 10,000 vehicle accidents annually in Ethiopia, while the average fatality rate is 60 per 10,000 vehicles across sub-Saharan African countries. At least one person dies out of (every) five car accidents occurring in the country, according to. A 2009 UN Economic Commission for Africa report (as cited in IRIN, 2011) stated that Ethiopia had 95 traffic accident fatalities per 10,000 vehicles as of 2007-2008. In Ethiopia, a 2008 estimate of economic costs (attributed to road crashes) conservatively put this at close to 80 million US dollars per year (ECA, 2011).

As far as traffic accidents are concerned, the country is ranked on 12th position in the world registering 2.77% of the total deaths result from road accidents according to WHO (2011) and Afro Autos (2013). Under the National Road Safety Strategy Plan launched in July 2011, Ethiopia hopes to halve the fatality rate by 2020. To parcel up, officials say, improved access

to emergency medical care and compulsory third-party insurance coverage could help to lower Ethiopia's high road-traffic accident death toll (IRIN, 2011).

2.1.7. Role of Motor Insurance Industry in Road Safety

The UN estimates that the economic cost of road trauma to developing countries alone is at least \$100 billion per year. The emotional cost is not viable to calculate approximately, yet road trauma is preventable (Fronsko, 2011). The development of insurance products that help reduce the finance burden of injury; providing education and incentives to encourage safer road-user behavior; pooling of data to help inform decision making and consumer choice; and, seeking to embrace collaborative efforts within competitive environments to provide mutual benefit to stakeholders and society are the areas in which insurance can play its imperative role (Fronsko, 2011).

Insurance companies should be encouraged to invest directly in road safety interventions. They should also be heartened to promote and propagate research on road safety. If properly targeted, such spending will reduce their direct costs and offer indirect social benefits through reduced injury and death. Since insurance premiums are generally related to road crash costs, motor vehicle insurers have a motivation to reduce road crashes to help reduce claims and hence the premiums charged. They can also reinforce policies by their actions, for example by increasing premiums for those with drunk driving or speeding convictions. However, there is always a risk that such actions will tend to increase non-compliance without a complementary enforcement activity (Rizavi, 2011).

The key components for successful involvement of the insurance industry in road safety are: 1) Legislation: requires mandatory third party motor insurance on all drivers with about 5-10% of the premium (as a levy) for road safety; 2) Enforcement: road safety funds based on insurance premiums will need enforcement of motor vehicle insurance regulations; 3) Promotion: active partnerships should be sought to involve the industry in promoting road safety in insurance policies and the direct organization of safety campaigns (APEC, 2004) and (ADB, 2003).

In the best position of the above, as per ADB (2003) insurance companies can also involve in enforcement of road safety management strategies. A road safety fund based on insurance

premiums will require the enforcement of motor vehicle insurance regulations in order to realize its full potential earnings. One way of ensuring motor vehicle insurance regulation compliance is to have proof of insurance as a requirement of the periodic roadworthiness vehicle inspection. This approach works best if there is also a legal requirement that a valid roadworthiness sticker or certificate must be displayed and clearly visible on the windscreen of the vehicle. In Kazakhstan, in order to promote compliance with the new insurance regulations, motor vehicle insurance can be purchased at the vehicle inspection centers (ADB, 2003) and (APEC, 2004).

2.1.8. Compensation

Cost-recovery by public bodies which bear some of the costs of crashes, typically by claims against the insurer, can have an impact on premiums and encourage insurance companies to take road safety issues more seriously. Examples include National Health Service hospitals in the UK recovering treatment costs from victims or guilty parties insurance, and State and local highway departments in the USA recovering the cost of repairing damaged street furniture and other infrastructure (Rizavi, 2011).

2.1.9. Promotion and Sponsorship

Promotion concerns the sustained communication of road safety as a core business for government and society and emphasizes the shared societal responsibility to support the delivery of the interventions required to achieve the desired focus on results. This function goes beyond the understanding of promotion as road safety advertising supporting particular interventions and addresses the overall level of ambition set by government and society for road safety performance (Bliss & Breen, 2009).

The role of the insurance industry should not be limited to a passive funding source for road safety. A more active partnership should be sought between the insurance industry and the government. The insurance industry's support and commitment to road safety will be greater if it is involved in the organization of road safety and is able to help determine the use of their funds. Accordingly, the insurance industry should be represented on the finance subcommittee, if not the main body of the NRSC. The insurance industry can do much to

promote road safety in its insurance policies, as well as by sharing data and through the direct organization of road safety campaigns (ADB, 2003).

Insurers are always looking for new ways to reduce the number and severity of collisions on the road, both as part of their commitment to social responsibility and of their efforts to lower claims rates. By analyzing claims data, insurers identify groups of high-risk drivers and isolate the factors that contribute to their risk as a group. Where feasible, they then tailor their products to address some of these factors. In some markets this is done by incentivizing safer behavior through initiatives such as no-claims discounts, discounts for driver training or telematics. Insurers have been a powerful voice in promoting road safety at national and European level (CEA, 2009).

There are many examples, in developing and transition countries and industrialized ones, of the private sector directly sponsoring road safety initiatives. Four main areas of sponsorship have been identified: (i) road safety education and knowledge transfer, (ii) publicity and awareness campaigns, (iii) enforcement, and (iv) driver's training. Whilst these four groups are the main areas of business involvement in sponsorship, it should be noted that this is not an exclusive list (Rizavi, 2011).

The motor insurance industry plays an important role in road safety. Not only do most motor insurance companies assist in the creation of awareness through advertisements and circulars to clients, but they also provide the platform and solution to repair damaged vehicles. This also helps the driver of the vehicle; peace of mind (Arrive Alive, 2013).

Road safety spending will only produce value for money if it is well targeted and the impacts are properly evaluated. Much past expenditure by insurers has focused on road safety publicity campaigns. Spending by insurers is likely to have greater impact if it is planned and implemented in collaboration with other organizations in line with national road safety strategies (Rizavi, 2011).

2.1.10. Incentives

Road safety policies and automobile insurance contracts often use incentive mechanisms based on traffic violations and accidents to promote safe driving (Bliss & Breen, 2009). In

many European and Asian countries, as well as in North-American states or provinces, insurers' use experience rating in order to relate premium amounts to individual past claims experience in motor insurance. Such systems penalize insured drivers responsible for one or more accidents by premium surcharges (or maluses) and reward claim-free policyholders by awarding them a discounts (or bonuses) and are called no-claim discounts, experience rating, merit rating, or bonus-malus systems. If a bonus-malus system is in force, all policies in the same tariff class are partitioned according to the level they occupy in the bonus-malus scale. In this respect, the bonus-malus mechanism can be considered as a refinement of a priori risk evaluation splitting each risk class into a number of subcategories according to individual past claims histories (Denui et al, 2007).

2.1.11. Financing Road Safety

Funding and resource allocation concerns the financing of interventions and related institutional management functions on a sustainable basis using a rational evaluation and programming framework to allocate resources to achieve the desired focus on results. This is to ensure sufficient and sustainable road safety funding mechanisms. As part of this a rational framework for resource allocation supports the building of strong business cases for road safety investments based on cost-effectiveness and cost-benefit analyses. To achieve more ambitious performance targets countries may need to establish new funding sources and mechanisms (Bliss & Breen, 2009).

No serious road safety measures can be implemented or sustainably succeed without sound financing mechanisms. Thus, identifying and securing sustainable funding is a fundamental element in all road safety initiatives (APEC, 2004). The major funding sources are: budget lines for road safety in the relevant ministries, drawn from general tax revenues, levies added to insurance premiums, traffic lines dedicated to road safety activities, a certain percentage of road user charges and private sponsorship. The local authorities should seek to maximize funding contributions from those parties who benefit from the measures within the plan, primarily road user (Lacroix & Silcock, 2004).

In pursuit of the stated goals, expenditure on improving safety on the nation's roads should be seen and treated as an investment rather than as an expense (TMID, 2009). Motor vehicle

insurance begins to receive more priority in road safety management from the government. Insurance companies and other private sector organizations begin sponsoring one-off events, such as conferences or safety publications after the representation of insurance industry on the NRSC in Asia. A closer association between insurance and road safety is developed with new legislation requiring that a levy be imposed on insurance premiums. Insurance requirements begin to be enforced by the police and inspection authorities. At this time, policy issues such as premium rates, policy restrictions, maximum coverage limits, hit and run drivers, and processing times are reviewed. In addition to the financing role, the insurance industry assumes a more active role in supporting road safety. Insurance companies' databases are developed to be of use in analyzing road safety problems and are made accessible to researchers (ADB, 2003).

2.1.12. Vehicle Insurance Levies

Insurance levies are a form of road user safety fee providing an ongoing, predictable source of revenues. They are collected by adding a levy or surcharge to compulsory insurance premiums to fund road safety initiatives thereby act as a financial incentive to drive safely. Since the increasing costs of medical bills and auto repair is beyond the control of insurance companies, investing money to reduce crashes and subsequent claims costs became their best interest. Insurance companies also offer the potential to share business and marketing skills, besides funding, to assist in addressing road safety problems. For example, different countries like Canada, Australia and Finland found momentous advantage from investing in road safety because the benefits in terms of reduced claims (fewer crashes) often outweigh the amounts invested (APEC, 2004).

According to Silcock (2001), a number of countries have introduced legislative requirements for insurers of compulsory third party injury liability, to invest in road safety. Vehicle owners are required by law to have insurance for their vehicles and, in addition, have to pay a further tax. This surcharge can therefore be considered as a road user safety fee. Insurance and premiums are related to accident costs and the use of part of the premium to provide road safety measures to reduce accidents and their severity (and hence insurance costs) is justifiable as said by Wetteland and Lundebye (1997).

2.1.13. Private Sector Sponsorship and Funding

Joint campaigns between the government and the insurance companies become more ambitious as they realize the benefits that are accruing from their initial efforts and investments. Other companies with links to the motor industry, particularly the fuel industry and motor dealers, become more involved in road safety. The potential benefits resulting from the insurance industry contributing to road safety funding include: new funding source (nongovernmental); marketing and business skills; and improved perception of insurance industry (ADB, 2003).

Road safety has received demonstrable success by creating partnerships amongst the three sectors Public, private and NGO's since, in the rapidly changing world of today's society, the objectives of one sector can often only be achieved in partnership with participants from the other sectors. In general, the private sector includes the following agencies that may contribute to road safety initiatives: Media, Insurance Industry, Alcohol and Hospitality Entertainment Industry, Vehicle Manufacturers and Importers and Transport Industry (APEC, 2004).

Cooperation between car insurance providers and the road safety initiative goes further than providing advice to keep road users safe on the roads and to protect their vehicles. It is estimated that only 30% of the 10 million vehicles on the roads of South Africa are insured. The more insured vehicles – the better for road safety in South Africa (Arrive Alive, 2013). Through the assistance of experts from the insurance industry, the car insurance blog is providing information to assist vehicle owners in finding the correct insurance product, to maintain this relationship with the insurer and on what to do after vehicle damage or vehicle loss (Arrive Alive, 2013).

2.1.14. Why Is Funding From The Insurance Industry Needed?

While the central government is responsible for developing and implementing a coordinated road safety program, much of the economic costs of road accidents are borne by the private sector. Funding for road safety improvements should be shared with those who stand to gain from accident prevention measures (Lundebye & Wetteland, 1997).

In most countries, the insurance industry has traditionally limited its involvement to post accident compensation payments. A no-claims discount was most probably the only incentive or attention that motor vehicle insurance companies gave to accident prevention. This situation has proven unsustainable with many insurance companies (in developing countries), incurring excessively high claims loss ratios; i.e., the amount of money paid in accident claims compared to that collected in policy premium payments, as accident claims increase rapidly in the countries undergoing rapid motorization (ADB, 2003).

2.1.15. Road Safety Publicity and Education

According to Lacroix and Silcock (2004), public awareness campaigns have one or more of three goals: to inform the public of the nature of problems and prepare for change (e.g. in the law), to change attitudes, and to change behavior. It is important to provide information which both raises awareness of the issues and provides a background against which more specific changes—for example in legislation and/or enforcement—are more likely to be accepted by the general public in case general level of knowledge about road safety issues is low. Means of raising awareness include various public communication tools such as public information in the media, road side information, road safety events, educational measures (driver education, traffic schools for children), Walk-To-School events, and so on.

Research in the highly motorized, high income countries shows that road safety publicity campaigns, by them; have only limited impact on attitudes and behavior. However, when combined with other activities, especially law enforcement; the combined approach can reduce the number and severity of injuries. Private sector companies also will benefit from safer roads on which to operate, and from an improved corporate image by investing in local road safety activities and providing support for education and information materials such as flyers, posters, and so on (Lacroix & Silcock, 2004). They may perhaps also seek to fulfill their social responsibilities, and need access to a wider range of skills. Through partnerships, the private sector would be able to achieve some of their goals which would otherwise be impossible. For example, private insurance companies who want to reduce traffic related crashes would not be able to do that without the cooperation of the road authorities. It enables the private sector to receive clear benefits, and provides a more sustainable framework in delivering road safety initiatives according to APEC (2004) and ADB (2003).

In particular, the involvement of insurance industry firms enables them to add their professional expertise to road safety matters in such areas as data analysis, marketing, and publicity. The insurance industry itself will benefit from an improved self-image as the public acknowledges the companies' social responsibility. Name recognition and corporate image have been found to have been raised from campaigns (ADB, 2003).

2.1.16. Auto Insurance Pricing Opportunities

Technology is changing everything around the globe. It affects the way we live our lives, communicate, drive and even manage our financial affairs. It is only fair to expect that technology will have a significant impact on both road safety and on how much we pay to travel our roads (Insurance Telematics, 2013). It has been said that the automotive world is trying to integrate more vertically with the driver. Vehicle telematics, the process of long distance transmission of computer-based information, have the ability to speed up real information about driving behavior. This in turn opens a world of opportunity for car insurance companies across the globe. Insurance telematics has been recognized for more than the benefit it provides of increasing safe driving behavior. Insurance telematics and GPS technology such as TomTom HD Traffic are regarded as some of the important tools to reduce unnecessary travel and traffic congestion Fleet (Arrive Alive, 2013).

There is a clear and direct relationship between vehicle telematics and the benefits they are able to provide to the insurance industry in measuring and reporting on driving behavior. Insurance is all about measuring and calculating risk. Insurance companies evaluate the level of risk and then set premium rates and coverage per the measurement in question. Vehicle telematics is the best, most effective and scientific way to limit risk. Vehicle Telematics are used extensively in both commercial and personal use. It has proven to be a powerful and valuable tool to improve the efficiency within organizations and businesses (Insurance Telematics, 2013). Telematics-based vehicle insurance policies have attracted considerable attention from insurance officials in past years. Enabling novel rating schemes and safety related add-on services; they form a completely new class of insurance coverage and bring an unprecedented level of innovation to the motor insurance business. Practitioners and academics alike have attributed manifold benefits to these policies, including the attraction of

new, safety-conscious drivers, a downturn in accidents, and a reduction in claims costs (Litman, 1997).

Most insurance policies in the Asian and Pacific region are still vehicle based; i.e., the premium rate is determined by the type of vehicle and its previous accident record regardless of the experience or age of the driver. A driver-based insurance policy would limit the insurance coverage to only those drivers registered for the vehicle and the premium rate would be higher for any younger drivers or inexperienced drivers, as such groups of drivers have a higher accident risk (ADB, 2003).

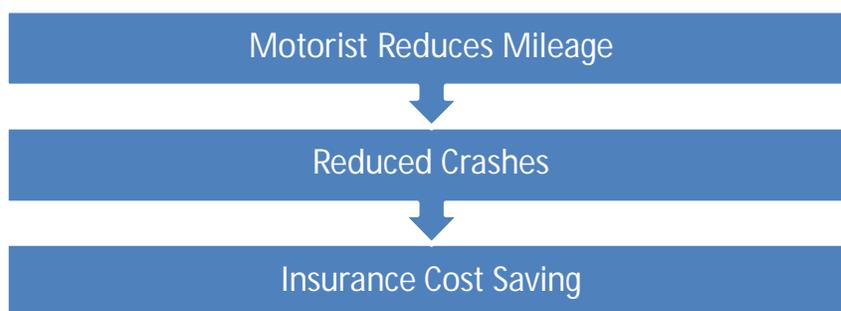
According to Laurie (2011), insurers have contended vigorously to identify and measure risk characteristics that are predictive of loss propensity. They can best measure the expected cost of claims for individual policies holds a tremendous competitive advantage in risk selection and pricing. Without the benefit of actual driving behavior data, insurers have relied on proxies such as driver age and credit-based insurance score. Studies indicate that directly measuring driving behaviors can significantly improve pricing accuracy when combined with traditional rating factors. A few of the particularly useful characteristics in predicting claims are: verified mileage and garaging, speeding, hard braking and cornering, day of week, time of day, and type of road.

Predicting claims using the driving behavior combined with traditional rating factors benefits a society, insurers and consumers. The benefits a society can gain are: reduced accident frequency and severity (e.g., via driver incentives and education), reduce accident response time, track and recover stolen vehicles, establishment of fault to improve equity in settling claims and reduced driving, pollution, traffic congestion and energy consumption. Whereas benefits to Insurers are: correct risk misclassifications, enhance pricing accuracy, attract favorable risks, retain profitable accounts, fight fraudulent claims, reduce claim costs, enable lower premiums, replace proxy variables with intuitive variables directly related to loss exposure, differentiate brand and market environmentally friendly programs. Benefits to Consumers are: reduced premiums demonstrate safe driving habits following an accident, enjoy value-added services, including: teen driver monitoring, emergency services, navigation/infotainment, stolen vehicle recovery and vehicle diagnostics (Laurie, 2011).

2.1.17. Distance-Based Vehicle Insurance

Insurance is currently a fixed cost with respect to vehicle travel. A reduction in vehicle mileage does not usually provide a comparable reduction in insurance premiums. Distance-based pricing converts insurance into a variable cost, so reducing a vehicle's annual mileage reduces its insurance premiums, all else being equal. It is based on the principle that prices should reflect costs, so consumers who reduce the costs they impose should receive proportionate savings. Reduced driving reduces the risk of crashes and insurance claims. By the existing pricing system, claim cost savings that result when motorists reduce their mileage are retained as profits by insurers, or returned to premium payers as a group. With distance-based pricing these savings are returned to the individual motorist that reduces mileage. The less you drive the more you save, reflecting the insurance cost savings you create (Litman, 2012).

Figure 2.1: Distance Based pricing



Source: Litman (2012)

2.2.EMPIRICAL STUDIES

It can be said that insurance companies had disregarded the issue of road traffic accidents and left it as it only concerns and is the sole responsibility of the government. It is, furthermore, evidenced that even though more researches have been conducted on the insurance industries, there are few studies conducted on the role of motor insurance industries in reducing road traffic accident or, more specifically, on road safety. The upcoming paragraphs draw attention to those studies related to the involvement of motor insurance industry's in reducing road traffic accidents and supporting road safety management.

It is well-known that motor accidents have already become one of the ever increasing public health problems, particularly for developing countries. Ethiopia is, therefore, no exception. In Ethiopia, a 2008 estimate of economic costs (attributed to road crashes) conservatively put this at close to 80 million US dollars per year (ECA, 2011). As far as traffic accidents are concerned, the country is ranked on 12th position in the world registering 2.77% of the total deaths resulted from road accidents according to WHO (2011) and Afro Autos (2013).

APEC (2004) glanced that the roles and responsibilities of the Insurance Industry in reducing road traffic accidents are identified as: assist in the development, sponsorship and funding of crash prevention programs; provide premium incentives as a means of encouraging and rewarding safer behavior; provide feedback to government and regenerative crash trends and outcomes to assist in the further development of road safety policy and provide feedback to automobile manufacturers on deficiencies and potential for improvements.

According to Fronsco (2011), it is compulsory for most types of motor vehicle to be legally operated on public road. In many jurisdictions compensation by the motor insurances is based on fault or negligence principles, with some jurisdictions offering no-fault coverage. In most jurisdictions insurance is a discretionary purchase. Rizavi (2011), most countries require at the very least compulsory third party insurance.

By providing the incentive of cheaper car insurance premiums for responsible driving behavior, the insurance industry can also promote road safety. Denui et al, (2007) and Gönülal (2009) claimed that motor insurance has the potential to be a powerful tool in the promotion of personal responsibility. If communicated effectively, the link between the consequences of causing an accident and the economics of paying for those consequences will of itself gradually lead to improved driving. Many more developed economies work extensively with bonus-malus premium pricing, which has a dramatic effect on making the driver feel responsible for his or her own driving. In developing economies, this is rarely a practical option at the individual level, but price variations by type of vehicle (and perhaps by location) can play a valuable part in bringing home the principle of the “user pays”

Explained in other language, Litman (2009) studied that efforts to financially incentivize safer on-road driving behavior are most visible through commercial pay-as-you-drive (PAYD) insurance options, in which premiums are differentiated to kilometers driven and in some cases time, locations and speed. To play a critical role in future road-safety initiatives, an area of growing interest are the use of kilometer based financial mechanisms to encourage safer driving practices. Alternatively, Greaves and Fifer (2011) conducted a study on the behavioral response of motorists to a variable rate charging scheme designed to encourage safer driving behavior and reduce their exposure to crash-risk, particularly kilometers driven, night-time driving and speeding. It is revealed that technology has facilitated even more sophisticated offerings focused on how a vehicle is being driven or Pay-How-You-Drive (PHYD). Taken as a whole, while participants made money, a substantial proportion (39 percent) did not suggesting they were unwilling/unable to change for the monetary incentives on offer. Speeding (which was the easiest thing to change) was reduced substantially following imposition of the charging scheme although a 'hard core' of perennial speeders remain.

Other studies have looked at specific methods of using financial mechanisms to change behavior, primarily speeding. Mazureck and Hatten (2006) detail a study in the Netherlands, in which motorists were paid to stay within the speed limit and maintain a safe following distance. Results indicated that speeding was reduced by around 20 percent based on a reward of 0.04 Euros for every 15 seconds spent not speeding; notably, once the rewards were removed, drivers quickly reverted back to their original behavior. In a similar study Gunnar, et al (2009), the Swedish Intelligent Economic Speed Adaptation study involved directly linking incentives to actual speeding behavior. Herein participants were paid a lump sum bonus and this bonus was reduced by a certain charge for every minute participants drove above the speed limit within the study period.

Insurer's powerful voice in promoting road safety at national level is verified by CEA (2009). To reduce the number and severity of collisions on the road, insurers are always looking for new ways mutually as part of their commitment to social responsibility and of their efforts to lower claims rates. This is done, in several markets, by incentivizing safer behavior through initiatives such as no-claims discounts, discounts for driver training or

telematics. In various countries, insurance associations have formed strong coalitions with road safety organizations and have successfully lobbied governments and other stakeholders to implement wide-reaching reform (Gönülal, 2009).

As per Denuit et al. (2007), in most countries, the insurance industry has traditionally limited its involvement to post accident compensation payments. It was concluded that insurers in many European and Asian countries, as well as in North-American states or provinces use experience rating in order to relate premium amounts to individual past claims experience in motor insurance using a system is known as no-claim discounts, experience rating, merit rating, or bonus-malus systems since it helps in penalizing insured drivers responsible for one or more accidents by premium surcharges (or maluses) and reward claim-free policyholders by awarding them discounts (or bonuses). To buttress this idea, ADB (2003) observed that, one claim-free year 25% discount, two claim-free years 40% discount, three claim-free years 50% discount and four claim-free years 60% discount forms of no-claim bonus are used in the United Kingdom. Drivers, also, earn an extra year of bonus for each year they remain without claims at fault up to a maximum of four years, but lose two years bonus each time they report a claim at fault.

Wetteland and Lundebye (1997) substantiated that a number of countries have introduced legislative requirements for insurers of compulsory third party injury liability, to invest in road safety. From these, Finland, the Province of Quebec in Canada, and the State of Victoria in Australia are recognized as pioneers in this respect. The experience that can be learned is that a road user safety fee levied through a surcharge on compulsory third party insurance premiums seems to be an excellent idea in line with the commercialization concept. Rizavi (2011) in his study identified that insurance companies, on one hand, can also reinforce policies by their actions, for example by increasing premiums for those with drunk driving or speeding convictions. Finland, Switzerland, Slovakia and South Korea, for instance, are among the few countries that extend their help to finance road safety interventions by adding a levy to insurance premiums. It is accredited that linking the annual vehicle licensing to evidence of insurance and requiring evidence of insurance to be displayed by way of a windscreen decal can increase the level of compliance with mandatory insurance cover.

APEC (2004) recognized that although governments are usually responsible for road safety planning and programs, many of the economic costs of road crashes are borne by the private sector. Despite the fact that dedicated road safety funding is rare, best practices demonstrate that funding is most effective when responsibilities are generally divided. Consequently, there is an economic incentive for private sector involvement because of the potential monetary gain resulting from safety improvements. In the UK, for case in point, private sector financing exceeded public expenditure on road safety. User charges can be levied through fees for drivers, vehicle licenses and road taxes to support road safety initiatives that would ultimately benefit the road users.

Motor insurance companies in many industrialized countries have been involved in supporting road safety efforts. Likewise, according to ADB (2003), the private sector and especially the insurance industry can and should play an important role in tackling road safety. The augmentation in motorization and the associated rise in accident claims entail the active involvement of the insurance industry as it bears the largest part of the costs of road accidents, and should assume greater responsibility for financing and directly promoting road safety. Incentives from insurance companies help reduce crashes, and subsequently reduce claims costs. Added to this, Wetteland and Lundebye (1997) recognized that using a part of the premiums to improve road safety makes sense and hence facilitate lower total accident and insurance costs as the insurance and premiums are related to road accident costs. The premium and an ad on safety fee would carry an incentive to drive safely even as the insurance premium usually reflects the individual drivers risk profile. As said by APEC (2004), Insurance companies countries, such as Australia, Canada, Finland, and other European countries, have found that there are significant advantages from investing in road safety, as the benefit in terms of reduced claims (because of reduced numbers of accidents) often outweighs the amount invested. The industry also benefits from an improved public perception of being seen as a socially responsible industry. Corporate donations used to support road safety can help private businesses to benefit their corporate images, increase market shares or brand product as safe (ADB, 2003).

Consistent with above, to have a succinct image, insurance companies in North American (both publicly and privately owned) have partnered with road agencies to improve collision

black spots. Motor insurance involvement is beginning to occur in some developing countries; for e.g., in Fiji a voluntary levy on insurance is financing the NRSC. In Fiji, 10 percent of third party premiums are to be dedicated to road safety while the 1996 Motor Vehicle Insurance Act in Kazakhstan allows for a special reserve fund to be established for road safety preventive measures; nevertheless it does not stipulate a minimum or maximum amount (ADB, 2003).

Wegman (2012) revealed that much has been done to improve road safety and the same is true for South Australia. Traditional stakeholders such as the police, road authorities and insurance agencies have invested considerable resources into tackling road safety problems and South Australia has good capability via the internationally recognized Centre for Automotive Safety Research (CASR).

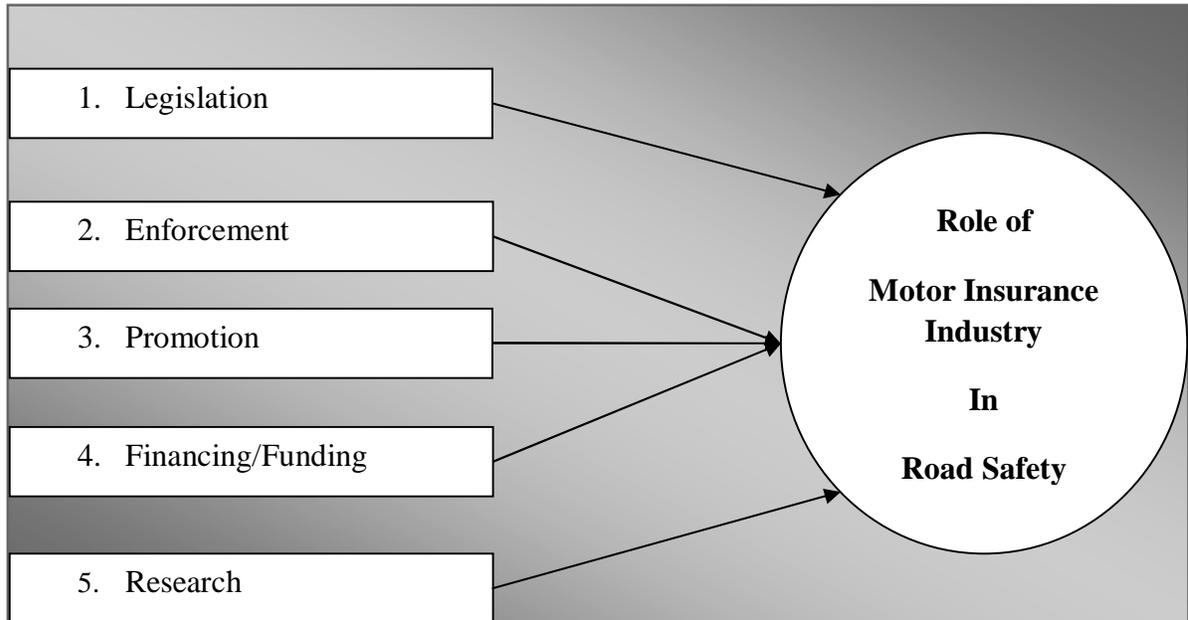
The current market environment for motor insurance sales, which exhibits harsh competition in many European countries, impels insurers' interest to use telematics technology. Stagnating market growth, premium erosions, and persistently high claims costs render automobile insurance, especially third-party liability, a business less and less attractive for insurance companies. In Europe, this especially holds true for mature insurance markets, although this sector is still growing in the new member states (Ippisch, 2010). Trials conducted by Norwich Union as early as 2005 have found that young drivers (18 to 23 year olds) signing up for telematic auto insurance have had a 20% lower accident rate than average (Arrive Alive, 2013).

To wrap up, Countries with NRSC nearly always have representatives of the insurance industry sitting on their boards where the insurers play an active role in promoting road safety and shaping overall road safety policy. The insurer is often a powerful voice at the policy table in countries with state-owned road accident compensation funds. For instance, the Transport Accident Commission in Victoria (Australia), one of three key organizations on the Road Safety Council, helped implement a coordinated and intensive program of traffic law enforcement and engineering measures that halved road deaths in Victoria. In New Zealand, the Accident Compensation Corporation is a member of the National Road Safety Committee. Most countries also have insurance company associations that are frequently active in promoting road safety and raising awareness of its importance. Individual insurance

companies, likewise, also work with others to improve road safety (Wetteland &Lundebye, 1997).

2.3. CONCEPTUAL FRAMEWORK OF THE STUDY

Figure 1.2: Conceptual Framework



Source: Adapted from Aaron-Thomas (2002)

CHAPTER THREE

RESEARCH METHODOLOGY

This section deals with how the study was conducted, specifically on the data sources and type, method of data collection, population of the study and methods of data analysis.

3.1. STUDY DESIGN

The study applied descriptive type of research. Descriptive type of research is commonly conducted to detail description of existing phenomena with the intent of employing data to justify current condition and whenever possible to draw conclusion from the fact discovered (Kothari, 2004). Descriptive research helps to find out what aspects of the problem and what are relevant and to describe those more thoroughly. So, descriptive research is more suitable for this research (Zikmund, 2003). Thus, a survey technique is chosen for data collection because survey technique helps to gather relevant data from sample of respondents by using of questionnaire and interview.

3.2. DATA TYPE AND SOURCE

The study employed both quantitative and qualitative data from both primary and secondary source to attain the objectives of the study. These are best suited to this research because the research was highly depended on secondary data from the published annual reports of the companies and unpublished documents from finance department of each company; while primary data were collected from the managers, claims department heads, marketing department heads, and underwriters through a semi-structured questionnaire which consisted of closed and open ended questions and unstructured interview with the general and manager of each insurance company. Primary sources are the first evidence of something happening, or being thought or said. Secondary sources are sources because they are created after primary sources and they often use or talk about primary sources.

3.3. DATA COLLECTION TECHNIQUES/ DATA COLLECTION INSTRUMENTS

Instruments: To have valuable research output the way of collecting data is vital, because inappropriate utilization of instruments of data collection, lead to unreliable conclusion.

Thus, the relevant documents and information were reviewed and collected from both secondary and primary data sources. The study used questionnaire and interview which were developed from the previous studies and literature review as data collection instruments.

Questionnaire: The data required for the study was collected through both close and open ended questionnaire. The open ended question helps the researcher to obtain information about the feelings and intentions of respondents. Close ended questionnaire has provided multiple choices to obtain information about the role of motor insurance industry in road safety.

Interview: Unstructured interview developed for the insured's of Awash Insurance Company to ascertain about the training given by Awash Insurance Company (AIC) and managers of the insurance companies to identify factors that influence insurance industry's involvement in road safety and to search out key and supportive information.

3.4. POPULATION OF THE STUDY

To analyze motor insurance industry and its role of motor insurance in road safety in Ethiopia, qualitative and quantitative data were collected from primary and secondary data sources. According to National Bank of Ethiopia (NBE, 2013), there are 16 Insurance Companies in Ethiopia. For that reason; from 16 Insurance Companies in Ethiopia, 10 insurance companies were selected. This is due to the 6 (six) insurance companies are in operation only for less than 4 (four) years and are excluded because car accident magnitude couldn't be observed at one time and the involvement in road safety too, so needs trend analysis. However, 2 of the Insurance Companies were unwilling to be included in the study and as a result, 8 insurance companies were considered.

From these Insurance Companies, the study used 47 respondents based on purposive sampling from managers, marketing department, claims department, finance department head and underwriters. This is because they are the one who look after the business of the company in one way or the other than the ordinary staff and provide the required information.

3.5.DATA PROCESSING AND ANALYSIS

Data processing is an important part of the whole survey operation. As a result, questionnaire and interview data were analyzed quantitatively with the help of SPSS version 20.0 to show the frequency and percentages while the others were analyzed qualitatively in order to attain the objective of the study and draw important conclusions followed by recommendations.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

Taking the main and specific objectives of the study (describing and examining motor insurance industry and its role in road safety in Ethiopia) into account, this chapter presents, analyzes and interprets the responses gathered from the respondents, i.e., from MII through on hand delivery semi-structured questionnaires consisting both close and open-ended questions, secondary data and interview conducted with managers and clients of Insurance Company. For this purpose, descriptive statistics like frequencies and percentages were used.

4.1.DESRIPTIVE STATISTICS AND DISCUSSION

Descriptive statistics discusses the numerical data of variables with a frequency distribution, percentages and other statistical tools. For the purpose of this study, out of 16 Insurance Companies in Ethiopia, 10 insurance companies were considered. But, two of the insurance companies were unwilling to participate in the study and as a result, the analysis was done for only 8 insurance companies. Self-administered questionnaires were distributed proportionally to the respondents and all of the questionnaires were completed and returned. As a result, data collected from 47 respondents was used for the analysis and interpretation of this study. Moreover, secondary data obtained from reports and leaflets of Insurance Companies has been described and interpreted in similar vein.

4.1.1. Demographic characteristics of respondents

Though many demographic characteristics of respondents could be there, this paper emphasizes on limited characters such as educational level and work experience in the organization.

Table 4.1.: Back Ground Information of Respondents Sex

Sex of Respondents	Frequency	Percent	Valid Percent	Cumulative Percent
Male	37	78.7	78.7	78.7
Female	10	21.3	21.3	100.0
Total	47	100.0	100.0	

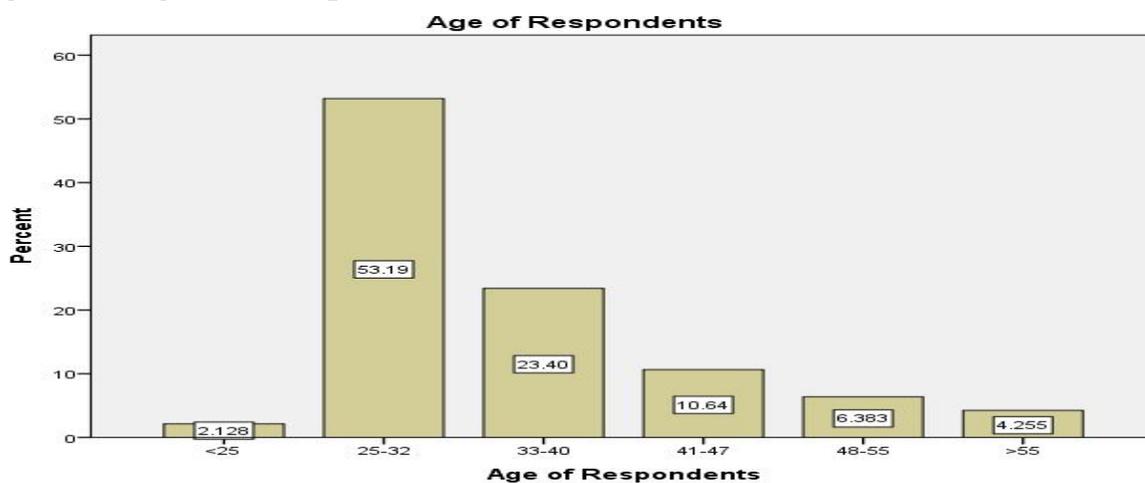
Source: Own Survey (2013)

The above Table 4.1 showed that sex of respondents under the study. Accordingly, greater part of the respondents was male, 78.72%, while 21.28% of them were female. *This shows male respondents in this study are almost four times the number of females and this shows domination of males in the companies under review.*

4.1.2.Back Ground Information of Respondents Age

Age of the respondents was categorized in to 6 groups and the data collected from the respondents is presented as follows.

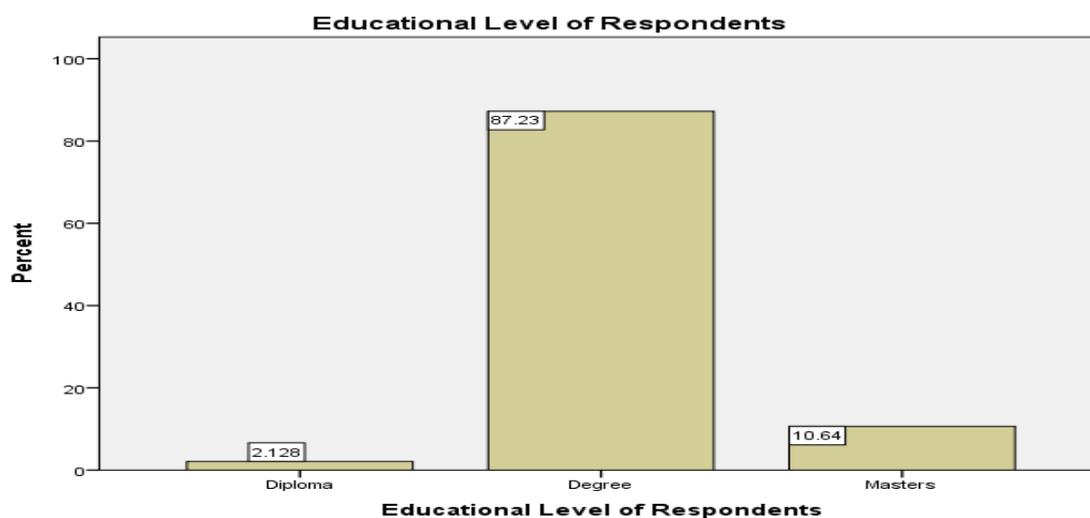
Figure 4.1: Age of the Respondents



Source: Own Survey (2013)

On the other hand, the above Figure 4.1 presented the age of respondents. As a result, respondents with less than 25 years of age are 2.13% and respondents which are 25 to 32 age account 53.19%. To continue with, 23.4% of the total respondents are aged 33 to 40. 41 to 47 years of age respondents totaled 10.64%, and those aged 48 to 55 are 6.4%. The last age group in this study is >55 years and they are only 4.3% respondents. To sum up, respondents between 25 to 32 years of age are greater in number than the other age groups, where as <25 and >55 are the least in number and they are the young and old employees respectively in the insurance industry from where respondents were selected for this study.

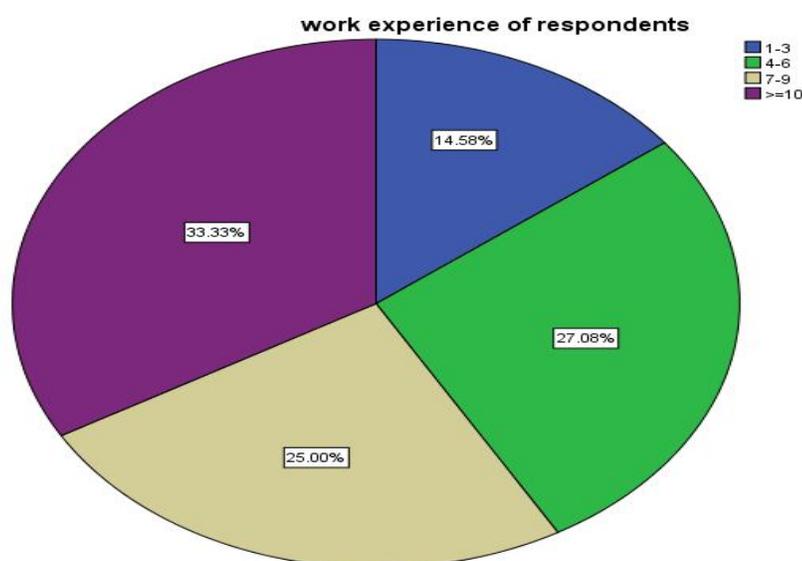
Figure 4.2: Back ground Information of Respondents Educational Level



Source: Own Survey (2013)

The Figure 4.2 above has presented educational level of respondents. Consequently, majority of the respondents (87.23%) were degree holders, 10.64% of them were masters' holders and only 2.13% were diploma holders. Thus, the level of education of respondents is dominated by degree graduates. Masters and diploma holders are very least. So, first degree holders are with larger share than second degree and diploma holders that follow.

Figure 4.3: Back Ground Information of Respondents Work Experience



Source: Own Survey (2013)

Figure 4.3 above depicted the work experience of respondents under study. In line with this, 1 to 3 years of experience is taken 14.58%, 4 to 6 was the experience of 27.08%, 33.33% of the respondents had work experience of ≥ 10 years while 25% of them had a service year of 7 to 9 years. Hence, 1/3 of the work experience and greater part is dominated by those with greater or equal to 10 years and 7 to 9 years respectively. Those respondents with 1 to 3 years of work experience were few when compared with others. *Respondents having greater than 10 years of work experience are the leading respondents and are followed by those having 7-9, 4-6 and 1-3 years of experience as per their rank.*

4.2.HISTORY OF MOTOR INSURANCE IN ETHIOPIA

Different studies show that four wheel motor vehicle has entered in Ethiopia in 1907 GC for the first time. This vehicle laid a foundation for the modern road transport service in the country. Starting from then the number of vehicles moving on roads increased. The number of registered vehicles in the country reached 309,361 in 2009 according to the data from Transport Authority (IFO, 2011).

Ethiopian motor vehicle is very less in number compared with the other neighboring countries. This is because the former regime does not initiate and support private investors. Opposite to this; in the period 1994 to 2004, the number of motor vehicles in the country has grown by 8% annually and shown great increment. However, this figure is, still, not enough compared with the population number of the country. Based on data collected in 2004/05, it was forecasted that the numbers of motor vehicles in the country grow by 5% and presented the following results (IFO, 2011).

Table 4.2: Number of Vehicles in Ethiopia

Year	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13
No of vehicles	189,682	210,538	228,633	236,851	309,361	324,829	341,071	358,124	376,030
Growth	0	11 %	9%	4%	31 %	5%	5%	5%	5%

Source: IFO (2011)

The 31% growth registered in 2008/9 comprises vehicles whose age is not known clearly in Table 4.2. These vehicles, apart from being many in types, are categorized as public, private, commercial, international agencies, Code-Diplomats, etc. From these vehicles, data collected from insurance industry in 2008/9 shows 35% or 106,765 vehicles have insurance coverage.

4.2.1. Motor Vehicle Insurance Coverage in Ethiopia

According to the data from IFO (2011), Modern insurance coverage is started in Ethiopia in 1907. However, even though providing insurance coverage is started, until the end of 1950s vehicle insurance coverage was provided with general insurance coverage types in bundle.

The number of vehicle insurance coverage users started to increase with the increment in trade and industry movement as well as the number of vehicles. With these reasons in mind, starting from 1960s, motor vehicle insurance coverage started to lead the industry taking larger share from the total amount of premium from the industry. Nowadays, from the total premium collected in a year vehicle insurance takes 46% and its annual growth is 20.23%. As it is shown in the above table, the premium share in 2008/9 collected from the total of 309361 vehicles in the country, 106765 vehicles or 35% have insurance coverage. The level of non compliance was 65%.

Motor insurance provided by insurance companies in Ethiopia are categorized in to three main parts. These are: third party motor insurance, third party and fire &/or theft insurance coverage (cover when the insured vehicle is damaged by fire and theft of the insured vehicle and if accident of fire and theft occurs on insured vehicle, the insurance company pays the claim amount to the policy owner) and comprehensive motor insurance coverage (pays for third party vehicle insurance, third party fire and theft cover as well as accident on the insured vehicle based on the agreement in the contract).

4.3.MOTOR INSURANCE INDUSTRY AND ITS ROLE IN ROAD SAFETY

It has been recognized that insurance companies should be encouraged to invest directly in road safety interventions and heartened to promote and propagate research on road safety. This is because, if such spending is properly targeted, it will reduce their direct costs and offer indirect social benefits through reduced injury and death. As a result, key components

for the successful involvement of the insurance industry in road safety are: *legislation* (requires mandatory third party motor insurance on all drivers with about 5 to 10% of the premium for road safety); *enforcement* (enforcement of motor vehicle insurance regulation and compliance); *research* (analyzing data to identify groups of higher risk drivers and isolate factors contributing to those risks); *financing/funding* (identifying and securing sustainable funding) and *promotion* (promoting road safety in insurance policies and organize safety campaigns). These are analyzed as follows.

4.3.1. Motor Insurance Industry's Involvement in Road Safety Management

Respondents asked how motor insurance industry's involves in road safety management. The responses selected by respondents among the alternatives provided are analyzed here under.

Table 4.3: The Way MII Involves in RSM

MII involves in RSM by:	Frequency	Percent	Valid Percent
Legislation	15	31.92	31.92
Promotion	21	44.68	44.68
Financing	4	8.51	8.51
Education and publicity	6	12.77	12.77
Upgrading traffic signals and markings	9	19.15	19.15
Conducting Research	2	4.26	4.26
Total	-	121.29 ¹	121.29 ¹

Source: Own Survey (2013)

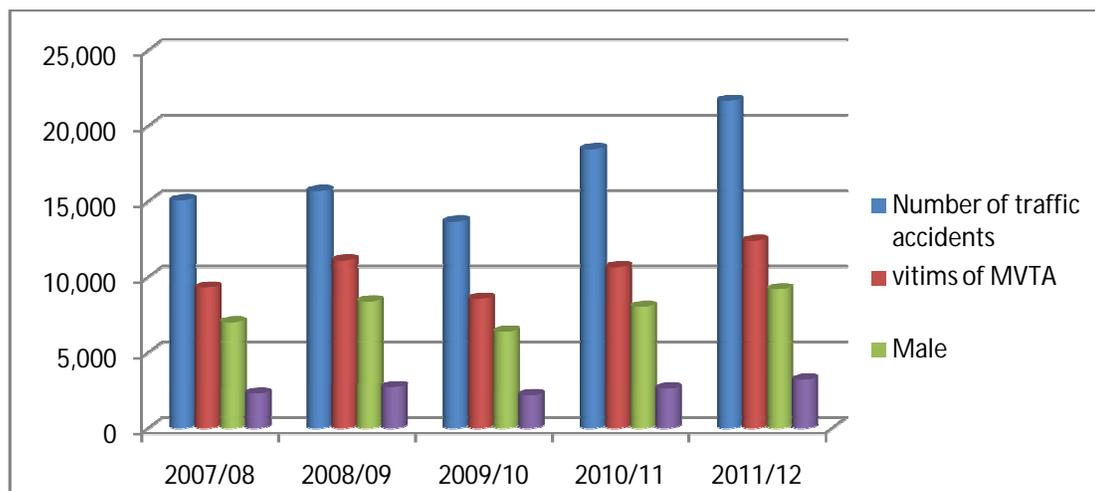
The above Table 4.3 has presented the way MII involves in Road Safety Management activities. As a result, 44.68% respondents, which are larger in proportion claimed that MII can involve in Road Safety Management activities through promotion; promoting road safety management activities, 31.92% respondents confirmed that legislation is the way MII can involve in RSM, 19.15% respondents replied MII can involve in RSM by upgrading traffic signals and markings on the roadside; it is the belief of 12.77% respondents that education

¹ The total percentage becomes greater than 100% because the study has provided respondents with multiple alternatives. As a result, the percentage for each alternative is computed by dividing the number of response received for each alternative by the total respondents (47) to equate the 57 total responses received to 100%.

and publicity by MII helps the victims of RTA get medical services and remuneration early to overcome the burden of RTA as this is one of the ways MII engage in RSM. 8.51% respondents responded that RTA and its burden reduces if MII allocates funds to RSM programs, whereas it the choice of 4.26% respondents that conducting researches by MII brings positive impact on RTA by which road safety management is supported. To wrap up; legislation and promotion were the key means of involving in RSM by the MII; in spite of the fact that education and publicity, upgrading traffic signals and markings on the roadside, financing and conducting researches by MII play significant role with a varying degree of impact on road safety and they are the pillars and the means through which MII can prevent, reduce RTA and its burden as well as compensating the victim's more importantly than others as it is close to and shares the problem as well as the solutions needed. *This result is best supported by the study conducted in 2004 by APEC, Aaron-Thomas (2002), ADB (2003), Lacroix and Silcock (2004), Denuit et al (2007), Bliss and Breen (2009), Gönülal (2009), Rizavi (2011), and Arrive Alive (2013).*

4.3.2. Legislation

In Ethiopia, at an average, 17,169 vehicle accidents register annually. From this, 6734 (39%) body injury and death, 10435(61%) accidents caused property loss. Out of these accidents, 2528 slight injury, 2344 serious injury and 1862 of them had caused death. In a nutshell, by these accidents, 10996 people encountered bodily injury and died. This means, at an average, there are around 3.6 victims` per accident. From these victims, 8% are drivers, 48% are passengers and 44% are pedestrians (IFO, 2011).

Figure 4.4: Trend of RTA in Ethiopia

Source: Federal Police Commission (2013)

As it can be seen from the above Figure 4.4, it can be said number of traffic accidents is alarmingly increasing in Ethiopia over the period 2007/08 to 2011/12 despite the fluctuation in the year 2009/10 where the number decreased to 13,677 from 15,695 in the 2008/09. The growth rate of traffic accidents increased over the period 2007/08 to 2008/09. Thereafter, it decreased with 13% during 2009/10 while it started to increase with fluctuating rate over the period 2010/2011 to 2011/12. On top of this, the number of victims of motor vehicle traffic accident has also increased in the same fashion from 9,301 in 2007/08 to 12,397 in the 2011/12. Looking at the growth rate, the victims of motor vehicle traffic accidents increased during the period 2007/08 to 2008/09 and 2010/11 to 2011/12 with a fluctuating rate. It is evidenced that the rate decreased by 23% during 2009/10. To sum up, in the year 2009/10, both the number of traffic accidents and victims of motor vehicle traffic accidents decreased despite the fact that it has increased in the remaining years.

Added to this, number of male and female victims of motor vehicle traffic accident, even though among themselves males are at higher rate than females, has also increased in a similar way during 2007/08, 2008/09, 2010/11 and 2011/12 and decreased in the year stated 2009/10. This calls for attention that has to be given that because of the vehicle on Ethiopian roads, daily 5 to 6 people die, 6 to 7 encounter serious body injury. More importantly, it is not only death and body injury accident happened to this people; rather the impact therein on

the family members and relatives under the victims that result in repetitive social and economic crisis has to be considered (IFO, 2011).

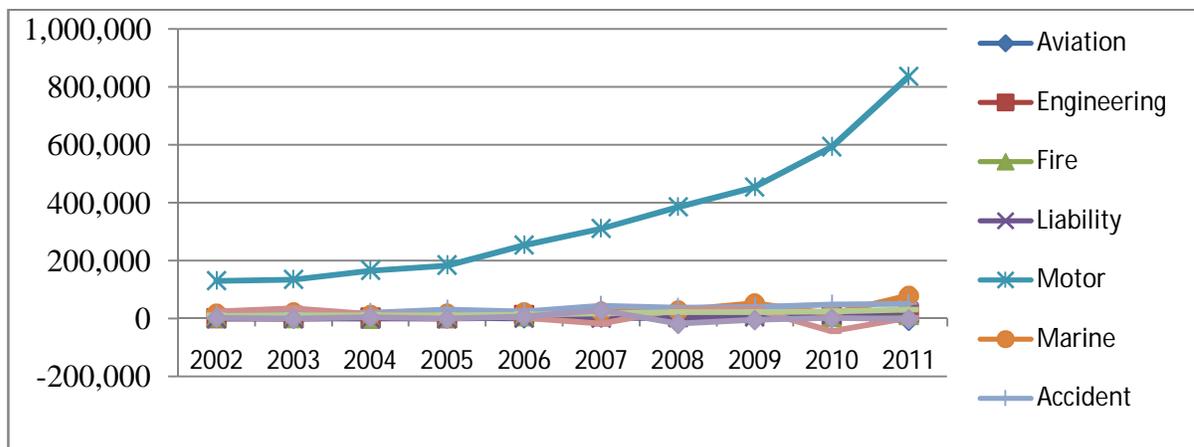
As the purpose of insurance is to provide sufficient revenue to compensate the minority who suffer loss, most countries require those responsible for death or injury to compensate the victim, or the victim's family. Since few people can afford to do this from their resources, they either choose or are required by legislation to insure against the risk of a claim. Most countries require at the very least compulsory third party insurance, although there are wide variations in compliance. In developing countries, vulnerable road users and public transport passengers account for most road casualties and are those who should benefit from third party insurance. Likewise, various studies have indicated that Ethiopia has one of the highest fatality rates per vehicle in the world; it is in excess of 100 fatalities per 10,000 vehicles. But the figure is about 19 and 2 per 10,000 vehicles in Kenya and United Kingdom respectively. Ethiopia also loses about \$65 million annually due to traffic accidents and the victims are mainly those in the working age group (18-30). In 2010, Ethiopia launched the Growth and Transformation Plan (GTP) with the aim of significantly cutting traffic fatality rates in the country by 80% in line with the United Nations' 10-Year Traffic Safety Plan themed "Ten Years of Work for the Road Safety 2011-2020".

Added to this; loss of lives, bodily injuries and damages to properties caused by vehicle accident are creating social problem with the increase in the occurrence of accidents caused by vehicles. To overcome these problems, Ethiopia has established a system for facilitating the provision of emergency medical treatments to victims of vehicle accidents and to require owners of vehicles to have "third party motor insurance" coverage against third party risks with a Proclamation No 559/2008 in 2008 as a response to cut the economic and social crisis the victims incur as a result of road traffic accident. This might seem a bit late to start this kind of mechanism compared to other countries, but it is better late than never. Proclamation No 559/2008 defines "Third Party" as any person other than the insured person, member of the insured person's family, the driver or any person employed on a vehicle to which an insurance policy applies at the time when an accident occurred giving liability under such insurance policy.

4.3.2.2. Effect of Traffic Accident on Motor Claims

The data obtained from the National Bank of Ethiopia shows that the claims settled for the period 2002 to 2011 is 3,448,542 ETB. The figure has increased with an increasing rate. The data is presented as follows.

Figure 4.5: Motor Insurance Industry's Claim Status



Source: National Bank Ethiopia (NBE, 2013)

The above Figure 4.5 has shown the net claims incurred for all non-life insurance classes. As a result, motor insurance escalated, though by fluctuating rate, during the period 2002 to 2011 as opposed to others where the maximum amount of claims settled is less than 100,000 birr. Also, the amount has also increased with the change in years and it is evidenced that the net claims incurred during 2002 to 2011 raised by an average growth rate of 2.12%. The increment in number may be because of different reasons. Among others, increase in road traffic accidents and penetration of many insurance companies in to the industry are of the most important factors.

Contrary to this, the increase in number of claims settled shows two things. First, it is contributing its share as an insurance take the insured back to its former position prior to accident so that its family are no put in danger and restore its property. The other is, when the number of claims increases, the companies are not happy in that it will lessen the amount of money that will go to the owners by tricking down the company's profit. So, when an insurance industry participates in road safety activities, it will bring two positive effects; first it compensates the victims of road traffic accident and property there in. Secondly,

participating in road safety programs reduces the road traffic accident and this helps them to pay lower claims in a year. This enhances to have more revenues, other things remain constant. Apart from this, playing its social responsibility, it builds positive image which enhances its promotion to have the advantage of marketing. *This idea is best buttressed by ADB (2003), Lacroix and Silcock (2004) and APEC (2004) that the insurance industry itself will benefit from safer roads on which to operate and an improved corporate image by investing in local road safety activities and providing support for education as well as information as the public acknowledges the companies social responsibility.*

4.3.3. Enforcement

Motor insurance industry can do best in enforcing the laws related to the vehicles in the country. It also put in to effect motor vehicle insurance regulation compliance.

4.3.3.1. Requirement of Third Party Motor Insurance in Ethiopia

As per the Proclamation No 559/2008, No person shall drive or cause or permit any other person to drive a vehicle on a road unless he has a valid vehicle insurance coverage against third party risks in relation to such vehicle. The following shall be excluded from the coverage of any insurance policy against third party risks: death or bodily injury to the insured person or member of the insured person's family; liability in respect of death or bodily injury caused to a person hired by the insured person and occurred in the course of such employment; damage to the insured vehicle; liability in respect of damage to goods carried on basis of rent or payment on the insured vehicle; and damage to any property owned by or is under the custody of the insured person.

Body injury, death and property damage will be paid by third party insurance if an accident occurs at the time the vehicle is providing its normal service. Nowadays, the maximum amount of third party insurance what is in the market and agreed up on by the insurers is presented as in the following table (IFO, 2011).

Table 4.4: Amount of Money for Third Party Insurance

Type of damage	Private vehicle	Commercial vehicle
	Amount (in Birr)	Amount (in Birr)
Body injury and death of one person	30,000	30,000
Maximum amount to be paid at one accident	150,000	200,000
Property damage	75,000	100,000

Source: Insurance Fund Office (IFO, 2011)

However, Articles 16 and 27(1) Proclamation No. 799/2013 which replaced Proclamation No. 599/2008 (A Proclamation on CTPI) indicates that insurance cover should be obtained for death, bodily injury, damages to property and Emergency Medical Treatment (EMT). As a result, cover be obtained for death/person (Br 5000 to 40,000), for a bodily injury/ person up to Birr 40,000, for EMT Birr 2,000 and for property damage up to Birr 100,000.

In Ethiopia, private insurers are providing coverage for autos, i.e. distributing certificate of insurance on behalf of government organization showing proof of insurance as requirement of the periodic road worthiness vehicle inspection (compulsory third party insurance certificate issued by the government body; “Insurance Fund Office”) and stickers showing this; apart from the Third Party and Fire and/or Theft Insurance and Comprehensive Motor Insurance Cover. They also collect funds based on the tariff set by the government from insured’s of third party liability insurance and submits to the Insurance Fund Office on a regular basis as per the proclamation (IFO, 2011).

In most countries, a victim’s claim can be reduced if they are found to have contributed to the collision (or the casualty severity). New Zealand and Victoria are exceptions and do not reduce a claim award even if the claimant is found to have contributed to the collision. ICBC forewarn their clients that settlements can be reduced if: claimant was not wearing a seatbelt; head restraint not properly adjusted and two wheeled rider/occupant not wearing a safety helmet (both motor cyclists and cyclists). In South Africa, the victim’s claim can be reduced by the extent to which they were held responsible for the crash and Botswana’s Road Accident Fund specifically states that a claim will be reduced 25 percent if the claimant was

not wearing a seatbelt at the time of the collision. In Russia, damages can be reduced, and even denied, depending on the extent of contributory negligence by the victim. The court can also, however, consider the financial status of the defendant, and the need for financial assistance for the recovery (All-Russian Insurance Association, 2001 as cited in Aaron-Thomas, 2002).

On top of this, coverage restrictions including cancellations are used with comprehensive policies in many countries. For instance, private insurance companies will decline a comprehensive policy claim if the driver over the legal alcohol limit and the alcohol has contributed to the crash. Other factors that can be expected to lead to a cancellation of coverage if they contribute to a crash include faulty steering, poor headlights, bald tyres, and worn brakes (Insurance Commission of New Zealand, 2001 as cited in Aaron-Thomas, 2002). But, absence of alcohol test mechanism and inadequate speed control mechanism were observed in Ethiopia though they are required by law as in the regulation No. 208/2011.

4.3.4. Promotion

Private firms are contributing to road safety by donations in cash and in kind to government led programs, and by support to non-government organizations. Suppliers to sector such as oil companies, vehicle dealers, insurance companies, and transport firms may promote traffic safety to their own financial gain (Wetteland and Lundebye, 1997). It is highly likely that there are untapped opportunities for support from the private sector, in particular in connection with promotional campaigns for their own products and they may often be able to exert significant political pressure and support for specific programs.

Motor vehicle traffic crashes are complex events that are a culmination of various driver, vehicle or environment-related factors. Driver-related factors that contribute to motor vehicle traffic crashes are mostly behavioral in nature. These include impaired driving, aggressive driving including speeding, and distracted driving, etc (Liu, *et.al*, 2005).

Motor insurers are commonly believed to be able to encourage safer driving habits by offering rewards and financial incentives for additional training and for not being involved, or at least not reporting any claim. In Ethiopia, MII is supporting the “Annual Traffic Week”

by bringing damaged cars for show by its own expense to create awareness on traffic accidents. In contrast, no funding is made yet for road safety management in a coordinated way. But, in South Africa (SAIA, 2009), since 2002 SAIA has donated funds to BACSA (Business Against Crime South Africa) in an effort to fight crime and reduce claims from motor vehicles. In the year 2009, SAIA donated R 1,535,000 to Business Against Crime South Africa on behalf of SAIA members to be used as explained below:

- ✓ R 1,035,000 to be used towards Business Against Crime South Africa's Violent and Organized Crime initiative, that includes vehicle crime and other crimes such as business robberies and household robberies;
- ✓ The rest of the funds to be used for a road safety initiative in co-operation with Business Against Crime South Africa and the Johannesburg Metro Police Department. This initiative has been identified as extremely important in an attempt to curtail alcohol related road accidents and have resulted in the creation of a second blood alcohol testing centre.

Moreover, SAIA has also recognized and supported the initiatives of Shayela Approved in promoting Defensive Driving Skills Standards. So, this can be used as a role model for countries like Ethiopia to identify the areas of intervention and how to allocate funds as well as utilizing it.

The campaign named “Shum Shufer”, which aims at reducing the death rate caused by traffic road in Ethiopia, was launched by Diageo (Meta Abo Brewery) in partnership with the Ethiopian Road Transport Authority. It intends at valuing consumers as it is the key pillar of the company’s business; but cannot enjoy if they drink in ways that endanger their and other health and safety. So promoting awareness on responsible drinking are a concern that the company shares. It mainly focuses on Ethiopian holidays to reach Addis Ababa and out of Addis through a variety of Media’s channel. So, the company has united with a number of private sector partners who have committed to supporting the Shum Shufer campaign, including Nyala Insurance, among others (Menen, 2014).

In line with the above, Insurance companies were sponsoring radio and television programs focusing on road safety management. To say some, Awash Insurance Company was sponsoring a radio program “Automotive Journal” on Fana FM 98.1 which put on the air on

Wednesday afternoon; Nyala Insurance has been contributing its modest share through a one hour daily program for the public and a one hour every Saturday for students at all its service units and satellite offices and class room sessions for group of high school/ college students were given in coordination with school directors. Nyala still continued sponsoring a program entitled “Auto Safety” on Addis FM 97.1 Tuesday starting from 2:00 to 3:00 local time. Ethiopian Insurance Corporation has been sponsoring weekly television program named “Guzo” in collaboration with Ethiopian Radio and Television Agency and Federal Transport Authority on ETV 1. Motor vehicle traffic crashes are complex events that are a culmination of various driver, vehicle or environment-related factors. Driver-related factors that contribute to motor vehicle traffic crashes are mostly behavioral in nature, which include impaired driving, aggressive driving including speeding and distracted driving, etc (Liu, *et.al*, 2005). *As a result, promoting and sponsoring programs having a potential of influencing driver’s behavior, among others, benefits both the industry and the community at a wider range. This enhances effectiveness of road safety management to some extent without disregarding other pillars of road safety management.*

4.3.5. Road Safety Management (RSM) Promotion by Motor Insurance Industry (MII)

Table 4.5: Ways of Promoting Road Safety by Motor Insurance Industry

RSM is promoted through:	Frequency	Percent	Valid Percent
Bonus malus system	41	87.23	87.23
Providing Additional coverage	4	8.51	8.51
Surcharge for crash involvement	4	8.51	8.51
Cancelling policy for reckless driving	12	25.53	25.53
Windscreen sticker or decal to show proof of insurance	10	21.28	21.28
Total	-	151.06 ²	151.06

Source: Own Survey (2013)

² The total percentage becomes greater than 100% because the study has provided respondents with multiple alternatives. As a result, the percentage for each alternative is computed by dividing the number of response received for each alternative by the total respondents (47) to equate the 71 total responses received to 100%.

Table 4.5 above showed ways of promoting road safety by the Motor Insurance Industry. Mass of the respondents, 87.23%, claimed that MII can promote RS actions by providing bonus-malus systems for claim free drivers. 25.53% of them pointed out that cancelling insurance policy by the MII for reckless driving promote road safety in warning their peers to watch out and not get involved in crash too, windscreen sticker or decal to show proof of insurance as a means to promote road safety is represented by 21.28% respondents while both charging additional premium for drivers involving in crash and providing additional coverage for claim free drivers were asserted by 8.51% of respondents as way of promoting road safety activities by the motor insurance industry. Generally speaking, it is evidenced that road safety management is promoted through bonus malus system in better way and while cancelling policy for reckless driving, windscreen sticker or decal to show proof of insurance, Providing Additional coverage and Surcharge for crash involvement having similar importance but with lesser degree. From this it is understandable that, despite the ranks, a road safety promotion movement by the motor insurance industry focuses more of on prevention and reductions aside from compensating incase accident occurs. *This result is consistent with a study by Aaron-Thomas (2002), (Gönülal 2009), ADB (20003) and Froning (1992). This has shown to which means attention has to be given and communicated to the insured's and sends positive signal to MII in considering correct way of promoting RSM, based on the priorities listed above by the performers in the industry so as to benefit from their action in the same fashion.*

But, though it is revealed with the questionnaire that the insurers are giving claim free discount, the researcher couldn't get the number of insured's given claim free discount for the companies themselves, with reservation, do not have the list on hand. This is a fear of the researcher that this bonus malus system may be a marketing tool like in many low income countries as it is scrutinized in the study by Aaron-Thomas (2002).

Bonus malus system (No Claims Discounts)

The bonus malus system refers to the use of premium discounts for claim free driving and surcharges for crash involvement. No claims discounts (NCD) are popular in the UK, British Columbia and Sweden, with discounts up to 75% available in the UK (Aaron-Thomas, 2002).

So, the Ethiopian Motor Insurance Industry can take the experience of United Kingdom as a point of reference how many percent is paid as discount: one claim-free year 25% discount, two claim-free years 40% discount, three claim-free years 50% discount and four claim-free years 60% discount forms of no-claim bonus (ADB, 2003).

4.3.6. Having Police Record to Calculate Premium

The cost of motor insurance premiums (CTPL insurance) is determined by the government after consulting the insurance companies. It is standard practice to base the insurance premium on the vehicle type, and many countries also consider geographical locations. For instance, both Sweden and UK allow premiums to be set by the insurers and many factors can influence the price. Among others, say for example UK insurers offer premium reductions on the basis of age, sex, additional driver training and just recently, an insurer is offering to charge on the basis of mileage with a black box fitted to the vehicle (Aaron-Thomas, 2002).

Police record, even though it is not much important than MII's data for research on road safety, plays a pivotal role in knowing the history of applicant and determining the premium that he/she has to pay (ADB, 2003). The questionnaire result is presented in table 4.2.6.1 below.

Table 4.6: Getting Police Record to Calculate Premium

MII uses police record to calculate premium	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	3	6.4	6.4	6.4
No	44	93.6	93.6	100.0
Total	47	100.0	100.0	

Source: Own Survey (2013)

The MII does not have any relationship with police traffics in having applicant's records to understand its history and using it for premium calculation with the exception of identifying whose fault is at the time of cars collision and accident. This idea is supported by 93.6% respondents from companies under review, which is greater in number than those who have said it goes to the police traffics, 6.4% respondents. *This shows the MII calculates premiums*

based on the data provided by the applicant and inspections made by its experts only. This has its own problem in understanding the history of the applicant and the determination of premium because the client may be of bad history and make the company profligate that leads its operations to difficulty. This result is inconsistent with the study by Denuit et al (2007) and (ADB, 2003).

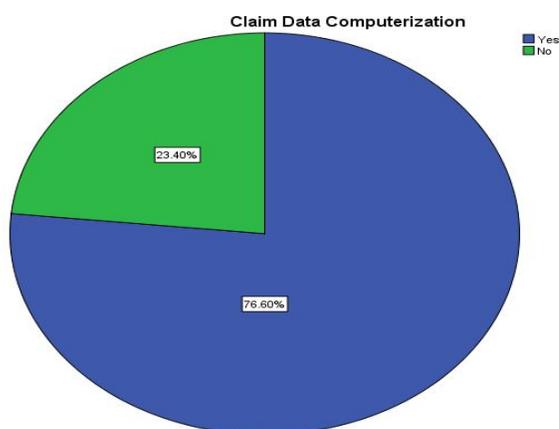
4.3.7. Research

Insurers may affect the research and development in the field of prevention of traffic accidents. The total cost of the economic consequences of road accidents often needs to be calculated before government will begin to invest in road safety. Insurance companies can provide much needed data for accident costing for insurance claim data have been found to be more comprehensive than police data.

4.3.7.1. Data Computerization, Sponsoring and Providing Data for Research on Road Safety

One of the important contributions of insurance industry in road safety can be pooling data to inform decision making and consumer choice. Accordingly, respondents were asked whether data is computerized and provided for any road safety research in recent years and it is presented as in the following pie chart.

Figure 4.6: Claim Data Computerization by the MII



Source: Own Survey (2013)

As it can be observed from the above Figure 4.6 about computerizing data, 36 (76.60%) respondents affirmed that the claims data is computerized and available for road safety researches, 23.40% respondents answered it is not computerized and not available for researches on road safety. Data obtained through interview shows that that it is partially computerized and available for road safety researches, which means it is not sufficient as required by the researchers and it may, researcher suspects, hamper the walk to draw conclusions for policy makers and informing the stakeholders in addition to the company itself. It may also lead to unjustified conclusions and wrong policy formulations that directly or indirectly have an impact on MII operations. *Speaking in a nutshell, much home work has been left, despite the numbers outweighing it is computerized, in piling up data more in an organized way and strengthening MIIs data base system so as to make data ready for researches on RSM programs as an input for policy makers and make the actors in the industry cost-effective (other things remain constant).*

Figure 4.7: Providing Data for Researches on Road Safety



Source: Own Survey (2013)

Figure 4.7 has offered an idea about providing data for researches on road safety. Consequently, almost 20% of the respondents had said the MII has provided data for research

on road safety in recent years, and the larger portion, i.e., about 80% of the respondents, had asserted that the MII has not provided data for research on a road safety in recent years. According to the researcher, *this can be seen from two perspectives; one from the MII itself (giving less attention to report the claims paid and accident data reported as well as registered and available on their hand as it is imperative in road safety research) and the other from the stakeholders (less understanding or consideration of the importance of MII in providing important data for any research on road safety and impacting RTA)*. This result is somewhat contrary to a finding by ADB (2003) as the insurance industry is a good source for accident data and costs. The total cost of the economic consequences of road accidents often needs to be calculated before governments will begin to invest in road safety. Insurance companies can provide much needed data for accident costing for, in a few countries, insurance claim data have been found to be more comprehensive than police data.

4.4. FACTORS INFLUENCING MOTOR INSURANCE INDUSTRY'S INVOLVEMENT IN ROAD SAFETY MANAGEMENT

The traffic density on the roads has increased the frequency of vehicle accidents which has not only had an effect on the short-term insurance industry, but in turn, has cost countries economy enormous amounts of money. The upcoming paragraphs highlight the factors influencing motor insurance industry's involvement in road safety management.

National Road Safety Advocacy Committee of Ethiopia comprises different public departments like Ministry of Transport, Federal Health Minister, Ministry of Justice, Government Communication Affairs, City Development and Construction Minister, Ministry of Education, Ministry of Finance and Economic Development, Federal Police Commission, Federal Transport Authority, Federal Roads Authority and Road Fund Office. Therefore, Insurance Companies in Ethiopia were not represented in National Road Safety Advocacy Committee. But, according to Wetteland and Lundebye (1997), countries with NRSC nearly always have representatives of the insurance industry sitting on their boards where the insurers play an active role in promoting road safety and shaping overall road safety policy as the insurer is often a powerful voice at the policy table in countries with state-owned road

accident compensation funds. This is, among others, what forces insurance industry's to be reluctant to involve in road safety.

Involvement of MII in RSM also decreases the risk of motor theft, prevents and reduces the frequency and severity of car accidents, increases the profitability of the industry and brings the premium at an affordable price as higher risks uplift the premium. This is what initiates them to be active participants in road safety.

SAIA (2014) declared that involving in road safety benefits both the insurance industry and the community. Consequently, motor theft has reduced by around 50% (measured per thousand vehicles) and it is no longer the primary cause of concern for motor insurers although still important, since the SAIA's involvement in road safety with BACSA (Business Against Crime South Africa) began. Instead, road safety has become an area of great concern as the motor account is under considerable pressure with around 70% of motor insurance claims being road accident related while still supporting crime initiatives to make sure that the successes that have been achieved are sustained. In South Africa, road safety problems such as drunk driving have also impacted on the cost of comprehensive motor insurance, with the steep increase in the cost of claims contributing to a decline in profitability. In addition, the increase in vehicle accidents and the reduction in new vehicle sales add even more pressure to motor insurance portfolios. And Ethiopia also shares some of these as it is publicized by the insurance industries. Therefore, initiatives need to be put in place to ensure that motor insurance premiums remain available at an affordable price to the current and future policy holders of countries motor insurance. If citizens continue to have a spirit of unlawfulness when it comes to driving, including driving under the influence of alcohol and drunk driving, motor insurance premiums could peak to unaffordable levels which could mean that people might not be able to afford motor insurance cover. Should an accident happen when someone does not have insurance cover, there will be no cover for the loss and this could lead to extreme financial stress and unhappiness.

Insurance premiums reflect levels of risk, and if the risk of accident is perceived as extremely high, higher premiums will follow. Failure to address the reasons for high accident rates, for instance drunk driving, insurance companies could ultimately be forced to continue to increase motor insurance premiums. This will lead to a negative impact on consumers and

ultimately the economy. It is therefore vital that drivers and insurance companies start working together to keep motor insurance costs down.

4.5. Training Drivers' and Doctors to promote Road Safety Management

4.5.1. Training Doctors to promote Road Safety Management

In order to make fair and consistent disability claims, doctors play a critical role by examining the injured person more seriously in providing the MII relevant and correct information which help them calculate and reimburse the victim of RTA without favoritism. As a result, greater part of the respondents admitted that no training was given to doctors to promote fair and consistent disability claims. *This warning signal calls for building up a culture of giving trainings to doctors to make fair and consistent disability claims in the country as a general in order to save the lives of millions and taking back to their former position prior to accident.*

4.5.2. Training Drivers' to promote Road Safety Management

Under this subtopic, interview conducted with the managers and drivers (insured's of Awash Insurance Company share company (AIC, S.c) was presented. This is because the other insurance companies did not give training to their insured's (drivers) to promote RSM whether on a yearly basis or on a planned program. Consequently, interviewees' responses were presented and discussed in the upcoming tables and paragraphs that follow.

From the 8 (eight) insurance companies under review, only two insurance companies, namely Awash Insurance Company and Nyala Insurance Company give training for their insured cars drivers and owners. This shows that the companies are, may be, reluctant at giving training to their clients as a means to reduce the number of accidents and the amount to be paid for claims for the company's sake on the way to attain the objectives of RSM. *This is consistent with a study by CEA (2009) in that insurers always seek new ways like training to reduce the numbers, claims rates and severity of collisions.* By doing so, RSM objectives can be promoted directly or may be indirectly as the objectives of different sectors differ from one another.

On top of this, those companies having replied they are giving training were asked the number of trainings they gave till now, the number of trainees and the feedback thereon. For that reason, the information received using interview reveals only Awash Insurance Company gave training to its clients two times in 2012 and 2013 calendar year (which continues on a yearly basis) whilst there is no information about Nyala Insurance Company regarding the number of training given and number of trainees took part in the training, apart from replying they are giving training in general.

Based on the analysis presented above, to include the impact / result of the first year's training as it is perceived by the trainees, the researcher has approached the clients of Awash Insurance Company to share their first year's training acuity on "Traffic Safety" and what they had experienced after taking part in the first annual training session. As a result, out of 90 trainees took part in the training on the second annual training for drivers and insured's of AIC, the researcher has accessed only 30 respondents for interview out of 55 trainees taking the training for the second time. During the training, many issues have been raised and discussed by the participants and the company managers, department head for claims settlement, police traffic expert from Addis Ababa Police commission and private consultants. The interview result is presented as follows in the form of tables favor the ease of analysis and understanding.

4.5.2.1.Importance of Training

Interviewees were asked what they benefit from the training and it is discussed as in the following table. All the interviewees replied that the training, without any doubt, rally round drivers mostly and it is through the following means'.

Table 4.7: Importance of Training

The training helps driver's and clients in:	Frequency	Percent	Valid Percent
Instruct vehicle handling techniques	28	93.33	93.33
creates awareness on road safety tools	29	96.67	96.67
Present claims experience of the company associated with motors	27	90.00	90.00
show selected traffic accident for sentient	30	100	100
present defensive driving techniques, including first aid	30	100	100
train transport laws and regulations	28	93.33	93.33
Total	-	573.33 ³	573.33

Source: Own Survey (2013)

The training given to drivers helps them in different ways. From these, as it is presented in Table 4.7, 96.33% interviewees replied that it instructs vehicle handling techniques, 96.67% responses revealed that it creates awareness on road safety tools, it helps them in understanding the claims experience of their company as 90% interviewees had responded, 100% interviewees confirmed that it shows selected traffic accidents for sentient, 100% interviewees believed that it presents defensive driving techniques including first aid which helps them save their life and other road users too, whereas 93.33% responses were received supporting it trains the transport laws and regulation for common understanding among the clients of the company so as to assure the reduced number of RTA and amount of money outlay for claims that can be easily controlled which in turn saves the lives of their customers itself and build strong relationship between the two parties. *Generally speaking, looking at the number of responses, the training provided by the company helps the drivers and insured's in creating awareness on road safety tools, give them an idea about selected traffic accident for sentient, present defensive driving techniques, instruct vehicle handling techniques, train transport laws and regulations and present the claims experience of the company associated with motor insurance.*

³The total percentage becomes greater than 100% because the study has provided respondents with multiple alternatives. As a result, the percentage for each alternative is computed by dividing the number of response received for each alternative by the total respondents (47) to equate the 172 total responses received to 100%.

4.5.2.2. Training Quality

The above Table 4.7 presented the importance of training being given to the divers and the insured's. Table 4.8 presents the quality of the training as recognized by the trainees leave alone its importance for it is presented above.

Table 4.8: Quality of Training

Quality of Training	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	13	43.3	43.3	43.3
Good	17	56.7	56.7	100.0
Total	30	100.0	100.0	

Source: Own Survey (2013)

According to the responses provided by the interviewees, the quality level of the company's training is rated between Excellent and Good. From these, 43.33% interviewees said that it excellent according to their evaluation while 56.67% interviewees rated it Good. *To sum up, quality of the company's training can be said well on average, considering the number of responses. This can be mull over it is promising and other insurance companies can scale up this best practice.*

4.5.2.3. Ways of Reducing RTA and Coping Up Road Safety Tools

This question is aimed at getting the insight from clients on how the MII has to engross in RSM and hope that it will bring the aspired change in tumbling RTA and get the better of RSM.

Table 4.9: The Way MII Reduces RTA and cope up with RSM

The way MII reduces RTA	Frequency	Percent	Valid Percent
Exercising bonus malus system	29	96.67	96.67
Providing additional coverage for claim free driving	22	73.33	73.33
Developing insurance that helps to reduce the RTA	28	93.33	93.33
Providing education to encourage safer road user behavior	26	86.67	86.67
Upgrading traffic signals and markings to make it discernible	25	83.33	83.33
Total	-	433.33 ⁴	433.33

Source: Own Survey (2013)

Since it is the era of globalization, customer satisfaction plays a great role in many businesses and it is also true for insurance companies operations too. In line with this, clients of Awash Insurance Company S.c were asked to brief what they expect the company to do so as to trim down the RTA and save their property and lives on the way to lessen the claims payment for its own business. In view of that, in order of responses received, 96.67% responses preferred the company to exercise bonus-malus system, 93.33% interviewees wish the company to develop insurance products that help to reduce the RTA, it is the desire of 86.67% persons if the company provide education to encourage safer road user behavior, upgrading traffic signals and markings was yearned by 83.33% and 73.33% interviewees prefer if the company provides additional coverage for claim free driving in order to reduce the RTA which strengthen the contribution towards RSM objectives.

To close up, the clients of AIC prefer the company to participate in reducing RTA in exercising bonus-malus system, develop insurance products that help to reduce the RTA, provide education to encourage safer road user behavior, upgrading traffic signals and

⁴ The total percentage becomes greater than 100% because the study has provided respondents with multiple alternatives. As a result, the percentage for each alternative is computed by dividing the number of response received for each alternative by the total respondents (47) to equate the 130 total responses received to 100%.

markings and provide additional coverage for claim free driving in order to reduce the RTA. This result is similar to the analysis presented in table 4.3.5.1, despite the ranks, based on data obtained through questionnaire from actors in the industry and a study by Aaron-Thomas (2002), Gönülal (2009), ADB (20003) and Froning (1992).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions drawn based on the findings obtained in the analysis and discussion part. Besides, it forwards the recommendations guided by research findings is also part of this chapter. Finally, it winds up by suggesting for future research directions.

5.1. CONCLUSIONS

The purpose of this research was to investigate the role of motor insurance industry in road safety in Ethiopia. Based on this objective, the research has used both primary and secondary data. Therefore, the researcher made the following conclusions based on the findings of the study.

Promotion and legislation were the key means of involving in RSM by the MII; in spite of the fact that education and publicity, upgrading traffic signals and markings on the roadside, financing and conducting researches by MII play significant role with a varying degree of impact on road safety. These are the means through which MII can prevent, reduce RTA and its burden as well as compensating the victim's more importantly than others as it is close to and shares the problem as well as the solutions needed.

Ethiopia has established a system for facilitating the provision of emergency medical treatments to victims of vehicle accidents and to require owners of vehicles to have third party motor insurance coverage against third party risks with a Proclamation No 559/2008 in 2008 as a response to cut the economic and social crisis the victims incur as a result of road traffic accident. This might seem a bit late to start this kind of mechanism compared to other countries, but it is better late than never.

Motor Insurance Industry's participation in road safety activities will bring two positive effects; first it compensates the victims of road traffic accident and property there in. Secondly, participating in road safety programs reduces the road traffic accident and this helps them to pay lower claims in a year. Apart from this; playing its social responsibility, it builds positive image which enhances its promotion to have the advantage of marketing.

In Ethiopia, MII is promoting and supporting the national road safety activities like "Annual Traffic Week". However, no funding is made, yet, for road safety management in a

coordinated way. The campaign named “Shum Shufer”, which aims at reducing the death rate caused by traffic road in Ethiopia, launched by Diageo (Meta Abo Brewery) in partnership with the Ethiopian Road Transport Authority was praised by road safety experts. A number of private sector partners, including Nyala Insurance have committed to support the Shum Shufer campaign.

Insurance companies like Nyala Insurance Company, Awash Insurance and Ethiopian Insurance Corporation were sponsoring radio and television programs focusing on road safety management. To say some, Awash Insurance Company was sponsoring a radio program entitled “Automotive Journal”; Nyala Insurance has been contributing its modest share through a one hour daily program for the public and a one hour every Saturday for students at all its service units and satellite offices and still continued sponsoring a program entitled “Auto Safety”. Ethiopian Insurance Corporation has been sponsoring weekly television program named “Guzo” in collaboration with Ethiopian Radio and Television Agency and Federal Transport Authority on ETV 1.

It is evidenced that road safety management is promoted through bonus malus system in better way and while cancelling policy for reckless driving, windscreen sticker or decal to show proof of insurance, Providing Additional coverage and Surcharge for crash involvement having similar importance but with lesser degree. This shows a road safety promotion movement by the motor insurance industry focuses more of on prevention and reductions aside from compensating incase accident occurs as prevention is better than cure. But, there was no data that proves the insurers are giving claim free discount as the company’s do not have the list on hand. This may lead to suspect that bonus malus system may be a marketing tool.

Claim data was computerized in almost all insurance companies. But, it is not ready as required for researches on this issue and needs strengthening MIIs data base system so as to make data ready for researches on RSM programs as an input for policy makers and make the actors in the industry cost-effective (other things remain constant). From the companies under review, only Awash Insurance Company is providing training to its insured’s.

Many factors influence MII’s involvement in RSM. Among others, Insurance Companies in Ethiopia were not represented in National Road Safety Advocacy Committee. Involvement of MII in RSM decreases the risk of motor theft, prevents and reduces the frequency and

severity of car accidents, increases the profitability of the industry and brings the premium at an affordable price as higher risks uplift the premium. This is because insurance claims are increasing from time to time and the price of spare parts and labor costs were as well.

5.2. RECOMMENDATIONS

Based on the findings of the study and the conclusions made, the following recommendations are forwarded.

The findings of the study show that legislation, enforcement, promotion, financing, upgrading traffic signals and markings and conducting researches were the pillars and the means through which MII can prevent, reduce RTA and its burden more importantly than others as it is close to and shares the problem as well as the solutions needed. So, MII should give more emphasis to these pillars and put into action in a coordinated way than before for RTA is alarmingly escalating and needs MII's active participation.

In Ethiopia, MII is promoting and supporting the national road safety activities like "Annual Traffic Week" by bringing damaged cars for show by its own expense to create awareness on traffic accidents. However, no funding is made, yet, for road safety management in a coordinated way. Thus, the industry should convince the companies to allocate funds to support RSM by creating active relationship with National Road Safety Coordination Office. As Lundebye and Wetteland (1997) stated while the central government is responsible for developing and implementing a coordinated road safety program, much of the economic costs of road accidents are borne by the private sector. Funding for road safety improvements should be shared with those who stand to gain from accident prevention measures. So, along with other organisations, financial donations should be allowed to be made by motor insurers. Insurance companies should be encouraged to sponsor existing program or complimentary activity, and not one-off publicity campaigns which are easily forgotten.

The study result also reveals that Awash Insurance Company was sponsoring a radio program entitled "Automotive Journal"; Ethiopian Insurance Corporation (EIC) has been sponsoring weekly television program named "Guzo" and Nyala Insurance, apart from contributing its modest share through a one hour daily program to the public and weekly program to students as well as sponsoring a radio program named "Auto Safety", has united

with Meta Abo Brewery to support “Shum Shufer” campaign, which aims at reducing the death rate caused by traffic accident in Ethiopia. Therefore, these insurance companies should be encouraged and recognized by the government body (national road safety coordination office) while the other insurance companies in the industry should scale up and follow the footsteps of these companies so as to participate in and support RSM programs as prevention is better than cure for promotion and sponsoring RSM programs have a potential of influencing driver’s behavior, among others, which benefits both the industry and the community at a wider range.

The study has also come up with the finding that road safety promotion movement by the motor insurance industry focuses more of on prevention and reductions, aside from compensation incase accident occurs, as prevention is better than cure through bonus malus system, cancelling policy for reckless driving, windscreen sticker or decal to show proof of insurance, Providing additional coverage and Surcharge for crash involvement having similar importance but with lesser degree. But, except windscreen sticker, there was no data that proves insurers are promoting RSM in this manner to influence the behavior of drivers as the companies do not have the list on hand. Consequently, the industry should prepare a separate list of clients (insured’s) benefiting from bonus malus system, number of policies cancelled for reckless driving, insured’s given additional coverage and customers surcharged for crash involvement to inspire as well as warn other insured’s/ drivers.

Other actors in the industry should train their insured’s as Awash Insurance Company did which has positive influence on insured’s behavior. Claim data should also be computerized and be ready for researches on RSM as it helps the actors and the society.

Unless RTAs are eliminated or reduced otherwise, the cost of purchasing insurance could rise. This creates another problem on the citizens and the country as the loss of life and property damage will take larger share from the country’s GDP. Hence, National Road Safety Advocacy Committee should include and work tightly with MII as it is a victim of the problem; close to the solution as it plays a vital role through its policies; and brings insurance premium to an affordable price by preventing and reducing RTA.

Road safety advisory body should organize a training workshop for insurance officials to increase their awareness of which measures are believed to be the most effective and practical.

Direction for Further Study

This research has gone through the role of MII in road safety in Ethiopia, namely legislation, enforcement, promotion, funding and research. However, it has not covered the issues related to the compensation (the view of the victims of hit and run) and did not use inferential statistics (econometrics model). So, future researches should address this issue.

REFERENCES

- Asian Development Bank (ADB), (2003). *Road safety funding and the role of the insurance industry. Road safety guidelines: for the Asian and Pacific Region*. Received on May 20, 2013 from <http://www.adb.org>
- Aeron-Thomas, (2002). *The Role of the Motor Insurance Industry in preventing and compensating road casualties*. Received on February 01, 2013 from www.transport-links.org/transport_links/.../301_Insurancefinalreport.PD.Berkshire, United Kingdom.
- Afro Autos, (2013). *Where roads kill many in Africa: Whose responsibility?* Received on February 11, 2013 from www.afroautos.com/.../where-roads-kill-many-in-africa-what-are-the-ma
- Ameratunga, S., Hyder, A., & Norton, R. (2006). *Road-traffic injuries: confronting disparities to address a global-health problem*. Received on February 11, 2013 from www.jbpub.com/essentialpublichealth/skolnik/2e/weblinks.aspx?chapter.Lancet, 367: 1533-1540.
- Anderson & Brown (2005). "Risk and insurance". *Education and examination committee of the society of actuaries*. Retrieved on October 18, 2013 from www.soa.org/files/pdf/P-21-05.pdf.
- Asia Pacific Economic Cooperation (APEC), (2004). *Compendium of Road Safety Initiatives. Initiatives for Improving Road Safety Phase I. Institute of Transportation MOTC*. Received on February 15, 2013 from [www.apec-tptwg.org.cn/.../Road%20Safety%20Compendium%20\(for%20](http://www.apec-tptwg.org.cn/.../Road%20Safety%20Compendium%20(for%20) Taipei, Chinese.
- Arrive Alive (2013). *Car insurance advice / Education and Road Safety in South Africa*. Retrieved on April 12, 2013 from www.arrivealive.co.za/pages.aspx?i=2932.

- Blincoe, L. (1996). *The economic costs of motor vehicle crashes*. National highway traffic safety administration. Washington D.C. Retrieved 14 May, 2013, from www.nrd.nhtsa.dot.gov/.../80.
- Bliss, T., & Breen, J. (2009). *Implementing the recommendations of the world report on road traffic injury prevention*. Retrieved on 02 May, 2013, from www.iso.org/.../livelinkget.
- Brainard, L. (2008). *What is the role of insurance in economic development?* Zurich. Retrieved 03 May, 2013, from www.zurich.com/.../what_is_the_role_of_econo.
- Comité Européen des Assurances (CEA). (2006). *The European motor insurance market*. Retrieved 02 May, 2013, from www.insuranceeurope.eu/uploads/.../cea-motor_web.p.
- Comité Européen des Assurances (CEA). (2009). *CEA road safety compendium 2009*. brussels, Belgium. Retrieved on 22 July 2013, from http://www.insuranceeurope.eu/uploads/Modules/Publications/1237474647_road-safety-compendium.pdf.
- Commonwealth of Pennsylvania, (2013). *Automobile insurance guide*. Retrieved 14 March, 2013, from www.portal.state.pa.us/.../auto_insurance/.../_insurance_guide/53652
- Dempsey, N. (2007). *Road safety strategy 2007-2012*. Ireland road safety authority. Ballina, Co. Mayo. Ireland. Retrieved on 16 January, 2013 from www.rsa.ie.
- Denuit, M., Maréchal, X., Pitrebois, S., & Walhin, F. (2007). *Actuarial modeling of claim counts. Risk classification, credibility and bonus-malus systems*. John Wiley & Sons Ltd. The Atrium, Southern Gate, Chichester, England. Retrieved on 25 June, 2013, from faculties.sbu.ac.ir/~payandeh2/files/.../Actuarial%20Modelling%20of.pdf
- Desai, M. & Patel, K. (2011). *Safety measures for controlling road accident injuries and fatality*. National Conference on Recent Trends in Engineering & Technology. B.V.M. Engineering College, V.V. Nagar, Gujarat, India.
- Economic Commission for Africa (ECA). (2011). *Africa plans to cut road crashes in a decade*. Addis Ababa, Ethiopia. Retrieved on 26 June, 2013, from NewBusinessEthiopia.com.

- Ernst & Young (2011). *Motor insurance: Asia's growth engine*. EYGM Limited. Retrieved on 26 June, 2013, from www.ey.com.
- Falegan, J. (1991). *Insurance an introductory text*. University of Lagos Press. Lagos. Retrieved on 26 June, 2013, from www.amazon.com/Insurance-introductory-text-J-Falegan/.
- Francis, B. (2013). *Motor vehicle insurance*. Received on August 18, 2013 from <http://www.insurancecouncil.com.au/for-consumers/types-of-insurance/motor-vehicle-insurance>. Insurance Council of Australia Ltd. Sydney.
- Froning, P. (1992). *Potential revenue sources for Virginia's transportation safety programs: review of Virginia's revenue sources and a survey of other states*. Final Report, Charlottesville, Va. Retrieved on 25 August, 2013, from <https://catalog.swem.wm.edu/Record/1502879/Details>.
- Fronsko, A. (2011). *Road safety and insurance markets overview*. Geelong, Australia.
- Gönülal, S. (2009). *Motor third-party liability insurance*. Primer Series on Insurance Issue. World Bank. Retrieved on 29 February, 2013, from www.worldbank.org/nbfi.
- Greaves, S., & Fifer, S. (2011). Analysis of a financial incentive to encourage safer driving practices. *Australasian Transport Research Forum 2011*. Adelaide, Australia Publication. Retrieved on 29 February, 2013, from <http://www.patrec.org/atrf.aspx>.
- Gunnar, L., Lars, H., Jan-Eric, N., & Fridtjof, T. (2009). Pay-as-you-speed: Two field experiments on controlling adverse selection and moral hazard in traffic insurance. Retrieved on 12 October, 2013, from <http://www.fieldexperiments.com>
- Hadrill, S. (2006). *Older drivers: road safety, mobility and motor insurance*. Retrieved on 25 February, 2013, from www.mss-media-consultants.co.uk/Fin-Products-Guide.pdf.
- Hamm, W. (2008). *A consumer's guide to auto insurance*. North Dakota Insurance Department. US. Retrieved on 24 October, 2013, from www.state.nd.us/ndins.
- Hardy, E. (2009). Consultation Response to Safety Authority (RSA) motorcycle safety action plan. "Write To Ride – Right To Ride". Northern Ireland. Retrieved on 25 February, 2013, from www.writetoride.co.uk.
- Howell, B., Kavanagh, J., & Marriott, L. (2002). No-Fault public liability insurance: evidence from New Zealand. *Agenda, Volume 9, Number 2, 2002, pages 135-*

149. Retrieved on 13 July, 2013, from www.mss-media-consultants.co.uk/Fin-Products-Guide.pdf.
- IMRTH, (2011). *Road Safety Is No Accident*. Government of India. Retrieved on 25 May, 2013, from www.who.int/roadsafety/en/.
- Insurance Australia Group (IAG). (2011). *General insurance fundamentals*. Retrieved on 06 September, 2013, from www.nzi.co.th/images/IAG%20Insurance%20Basics.pdf.
- Insurance Fund Office (IFO). (2011). Emergency medical treatment to all road accident victims. *Wastina Annual Bulletin, Volume 1, NO. 1. Addis Ababa, Ethiopia*.
- Ippisch, T. (2010). *Telematics data in motor insurance: creating value by understanding the impact of accidents on vehicle use*. Lulu Enterprises, Inc. USA. www1.unisg.ch/www/edis.nsf/.../dis3829.pdf
- IRIN (2011). *Ethiopia: Government moves to address road-accident toll*. Addis Ababa, Ethiopia. Retrieved on 25 December, 2013, from www.irinnews.org/.../ethiopia-government-moves-to-address-road-a
- Kwiecien, I., & Poprawska, E. (2011). Motor third party liability insurance: Polish market in connections to the European trends. *International Journal of Economics and Finance Studies*, 3. Retrieved on 26 August, 2013, from www.ku.ue.wroc.pl.
- Lacroix, J., & Silcock. D. (2004). *Urban road safety & sustainable transport: A source book for policy-makers in developing cities*. Module 5b.D-6480, RoBdorf, Germany.
- Laurie, A. (2011). *The new auto insurance*. Retrieved on 26 December, 2013, from www.towerswatson.com/.../Newsletters/.../2011/1101-Tel.
- Litman, T. (1997). Distance-based vehicle insurance as a TDM Strategy. *Transportation Quarterly*, 51(3), pp. 119-137. Retrieved on 24 April, 2014, from trid.trb.org/view/577268
- Litman, T. (2009). *Pay-As-You-Drive pricing for insurance affordability*. Retrieved on 01 September, 2013, from vtpi.org/payd_aff.pdf
- Litman, T. (2012). *Distance-based vehicle insurance as A TDM strategy*. Victoria Transport Policy Institute. Retrieved on 26 April, 2014, from www.vtpi.org/dbvi.pdf.
- Liu, C., Chen, C., Subramanian, R., & Utter, D. (2005). *Analysis of speeding-related fatal motor vehicle traffic crashes*. Retrieved on 24 January, 2014, from www.nhtsa.gov/.../8098.

- Lundebye, S., & Wetteland, T. (1997). *Financing of road safety actions*. Proceedings of third African road safety congress: Economic Commission for Africa and Organisation for Economic Co-operation and Development (OECD). Pretoria, South Africa publicaties. Retrieved on 25 December, 2013 from minienm.nl/.../verkeersveiligheid-in-zuid-afrika-409804.pdf.
- Mazureck, U., & Van Hattern, J. (2006). Rewards for safe driving behavior: influence on following distance and speed. Transportation Research Record. *Journal of the Transportation Research Board*, 1980, 31-38. Retrieved on 25 December, 2013, from www.swov.nl/rapport/Factsheets/UK/FS_Rewards.pdf.
- Menen, W. (2014). *Ethiopia launches campaign to cut road traffic accident*. Addis Ababa, Ethiopia. Received on 15 February, 2014, from <https://www.maledatimes.com/?p=10836>
- Murcko, T. (2013). *Different types of car insurance policies and provisions*. Retrieved on August 18, 2013 from <http://www.investorguide.com/article/11602/car-insurance-and-the-different-types-of-policies-igu/>
- National Road Safety Council (NRSC). (2011). Road safety is no accident. *Hon'ble Minister for Road Transport and Highways, Government of India. India*.
- Onafalajo & Kunle, A. (2011). Effects of Risk perception on the demand for insurance: implications on Nigerian road users. Lagos State University, Ojo, Lagos. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 2 (4): 285-290. Retrieved on 26 December, 2013, from jetems.scholarlinkresearch.org/.../Effects%20of%20Risk%20Perception%...
- Oromiya Insurance Company (OIC). (2012). *Annual Report*. Addis Ababa, Ethiopia.
- Persson, A. (2007). *Road traffic accidents in Ethiopia: Magnitude, causes and possible interventions*. Lund University, Sweden. Retrieved on 25 December, 2013, from www.aracneeditrice.it/pdf/9788854818682.pdf
- Poprawska, E., & Kwiecień, I. (2011). Motor third party liability insurance: Polish market in connections to European Trends. *International Journal of Economics and Finance Studies*. Vol 3, No 2, 2011 ISSN: 1309-805

- Rizavi, A. (2011). *Safety challenges in developing countries*. Eng-Wong, Taub & Associates. One Gate Way Center. Newark.
- Ryskamp, D. (2010). *What is the role of insurance companies?* Demand Media, Inc. Retrieved on 19 January, 2014, from www.acls.org/.../2010_Report_to...
- State Council of Educational Research & Training (SCERT). (2006). *General Insurance: vocational higher secondary teachers' source book*. Government of Kerala, Department Of Education. Retrieved on 28 October, 2013, from kucs.glp.net/c/document_library/get_file?p_l_id=498516.
- Sensarma, K., Balani, N., & Rawat, S. (2011). *Road accidents in India*. Ministry of Road Transport and Highways Transport Research Wing, Government of India. New Delhi.
- Silcock, R. (2001). *Review of road safety management practice: Report prepared for GRSP*. Babbie Group Ltd. TRL Ltd. Retrieved on 23 January, 2014, from r4d.dfid.gov.uk/Print/Project.aspx?ProjectID=5037&Mode=Print
- Squidoo, L. (2013). *Malaysian Insurance Industry News*. Retrieved on 22 July, 2013 from <http://www.squidoo.com/Insurancenews>
- Timothy, I. O., (2011). *Analysis of the Basic Principles of Insurance under the Nigerian Law of Insurance*. University of Ilorin, Ilorin, Nigeria. Retrieved on 17 April, 2014, from <https://www.unilorin.edu.ng/.../UNILORIN%20BOO...>
- TMID (2009). *National road safety policy*. The United Republic of Tanzania, Dar Es Salaam, Tanzania. Retrieved on 21 April, 2014, from www.uwaba.or.tz/National_Road_Safety_Policy_September_2009.pdf.
- Tooth, R., (2012). *An insurance based approach to safer road use*. Sapere Research Group, Australia. Retrieved 21 April, 2014, from acrs.org.au/wp.../Tooth-ACRS012-Insurance-and-road-safety-v2.pdf
- United Nations Environment Program (UNEP). (2007). *Insuring for Sustainability: Why and how the leaders are doing it*. The inaugural report of the Insurance Working Group of the United Nations Environment Program Finance Initiative. Retrieved on 21 April, 2014, from www.unepfi.org/...
- United Nations Economic Commission for Africa (UNECA). (2011). *The second African road safety conference*. Nov, 09-11, 2011. Addis Ababa, Ethiopia.

- Wegman, F. (2012). *Driving down the road toll by building a safe system*. Crown, South Australia. Retrieved on July 23, 2013 from <http://thinkers.sa.gov.au/wegmanflipbook/files/inc/911587238.pdf>
- Wetteland, T., & Lundebye, S. (1997). *Financing of road safety actions: third African road safety congress*. Pretoria, South Africa, World Bank Washington D.C., USA.
- World Health Organization (WHO). (2004). *World report on road traffic injury prevention*. Genève.
- World Bank (WB). 2(002). *Cities on the Move: An Urban Transport Strategy Review*. Retrieved on 23 December, 2013, from elibrary.worldbank.org/doi/book/10.1596/0-8213-5148-6.
- World Bank (WB). (2011). Scaling-up efforts to address the road safety challenge. *SSATP Newsletter*. No 9 – April 2012. Retrieved on 23 December, 2013, from www.ifrtd.org/en/tagresults.php?id=633
- Yayeh, A. (2003). *The extent, variations and causes of road traffic accidents in Bahir Dar*. Addis Ababa, Ethiopia. Retrieved on 23 December, 2012, from etd.aau.edu.et/dspace/bitstream/123456789/.../YAYEH%20ADDIS.pdf

APPENDICES

Appendix 1: Questionnaire Mekelle University

College of Business and Economic: Department of Accounting

Masters of Finance and Investment

A questionnaire to be completed by Insurance companies

Dear Respondents;

First of all I would like to thank you for your willingness in filling out this questionnaire. A previous research by Aeron-Thomas indicates that insurance companies have shown good support in some countries (both low income countries and high income countries) for promoting road safety and supporting interventions and research. Therefore, this survey is aimed at ***Assessing motor insurance Industry and its role in road safety management in Ethiopia***. The researcher; once again, would like to thank your kind assistance in completing the attached questionnaire which would take approximately not more than 10 minutes of your valuable time.

My respondents do not fear anything; I would like to stress the fact that none of the information you provide will be used against you and thus your responses will be treated as “strictly confidential” and I want to assure you that it is for the academic fulfillment (Masters of Science Degree in Finance and Investment) purpose only. Furthermore, if you have any doubt that you want to be clarified while completing this questionnaire, please don’t hesitate to contact me through the following means;

Mobile: 0921-88-72-56/ 0922-22-84-86

Email: edosagetachew@yahoo.com

- ❖ No need to write your name
- ❖ Please put “√” where necessary and write clear and precise answer on the blank spaces
- ❖ **Multiple answers are possible** for the choice questions

Part I: Respondents Background Information (please put “√” mark where necessary)

1. Sex: Male _____ Female _____

2. Age:

<25	25-32	33-40	41-47	48-55	>55

3. Department _____

4. Your position _____

5. Your educational level

certificate	Diploma	1 st Degree	2 nd Degree	Doctorate Degree	Other, please specify

6. Years of service _____

Part II: Information about motor insurance industry and its role in road safety

1. Motor Insurance Industry Involves in RSM through:

- a. Legislation
- b. Promotion
- c. Financing
- d. Education and publicity
- e. Upgrading traffic signals and markings
- f. Conducting Research

2. Is claim data computerized?

- a. YES
- b. NO

3. Has your company sponsored or provided data for any road safety research in recent years?

- a. YES
- b. NO

4. In which of the following Ways Motor Insurance Industry of Promotes Road Safety?

- a. Bonus malus system
- b. Providing Additional coverage
- c. Surcharge for crash involvement
- d. Cancelling policy for reckless driving
- e. Windscreen sticker or decal to show proof of insurance

5. Does your company give training for drivers and/or insured's on program basis?

- a. YES
- b. NO

6. Is your company has allocated funds and invested in road safety so far?

- a. YES
- b. NO

7. If your answer for the above question 6 is "No", would you list the reasons that enforce you to refrain from investing in road safety?

8. How road safety management is promoted/encouraged by your company?

- A. Through bonus malus system, i.e., premium discount for claim free driving
- B. Provide additional coverage for claim free driving
- C. Surcharge (charge extra) for crash involvement
- D. Cancelling the policy for reckless driving
- E. All
- F. Other, please specify -----

9. What possible outcomes are achieved with the implementation of Compulsory third party liability insurance?
- A. Victims of hit-and-run collision/accident got indemnification
 - B. Level of road traffic accident reduced and hence the number of victims
 - C. More premium was collected and contributed to the economic development of the country
 - D. Decreased amount of property damage and economic loss
 - E. Other, specify -----

Comments

1. Please write your comments and suggestions -----
-
-
-

Appendix 2: Interview

The following interview questions were conducted with managers of insurance companies.

1. What are the factors that influence MII from involving in RSM activities?
2. Is Claims data computerized and ready for researches on road safety?
3. Does your company provide no claims discount?
 - ✓ If “YES”; Starting from when and how many of your insured’s given discount?
 - ✓ If “NO”, why? Is there any problem with giving discounts?
4. Is surcharging premiums for crash involvement, providing additional coverage for claim free drivers and cancelling the policy for reckless driving practicable?
5. Does your company give training to its insured’s on road safety?
 - ✓ If “YES”;
 - How many times, for how many insured’s?
 - How did you see the impacts/ effectiveness/success of these trainings? Are they promising?

Interview

The following interview questions were conducted with customers of Awash Insurance Company (AIC).

1. How was the training that your company gives?
2. In what way the training that the company helps driver's and clients?
3. How do you think the MII can reduce RTA, thereby support RSM activities?