Statistical Analysis of Road Traffic Car Accident in Dire Dawa Administrative City, Eastern Ethiopia

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Abstract: Road traffic accidents (RTAs) have turned out to be a huge global public health and development problem. Dire Dawa City one of the federal states in North East Ethiopia has a high rate of accidents and deaths in relation to number of vehicles on the road. Realizing the need to establish baseline information on RTAs, the present study was conducted in Dire Dawa city under the jurisdiction of Dire Dawa Police Station, Dire Dawa, Ethiopia. Complete Road traffic car accident data of the year 2009 - 2013 from police records of Dire Dawa city Police station were studied. Data can be analyzed by using SPSS version 20.0 and MINITAB version 13.1 software. Data interpretation was done using descriptive statistics, two t-test comparison, chi-square test of independence, analysis of variance (one-way and two-way), and design of factorial experiment. The finding of this paper showed that the main cause of car accident is drivers. About 80% of car accident is resulted from the driver fault. Among the accident that resulted from the driver fault, not given priority for pedestrian contain the first position. Other factor like poor road condition, poor car condition, the absence of knowledge in traffic system, lack of ambulance and poor medical treatment are other cause and condition that increase the severity of the incident. Generally, the occurrence of car accident problem depends on defect on human factor, vehicle characteristics, road characteristics and environmental condition. The age of driver had also a significant impact on the occurrence of traffic accidents. Accidents were also highly depending on environmental factor like weather condition, type of road surface, condition of the road and joint road shape.

Keywords: Analysis of Variance, Dire Dawa Administrative City, Road Traffic Accidents

1. Background of the Study

Transportation is the vital sector that the other sector of the economy, the movement of person or material from where they are to where they like preferred are served through means of transportation. There are many problem related to transportation, but car accident is one and extensively distribution throughout the world. A car accident is road traffic incident that usually involves one road vehicle colliding with another vehicle or other road user, animal, or stationary roadside object and may result properly damage, injury and possibly death.

Road traffic accident is a major but neglected public health challenge. The World report on road traffic accident prevention has indicated that worldwide, an estimated 1.2 million people died in road traffic accident each year and as many as 50 million are being injured [1]. Current and projected trends in motorization indicated that the problem of Road traffic accident will get worse, leading to a global public health crisis. It has been indicated that, accordingly, by 2020 traffic accident is expected to be the third major killer after HIV/AIDS and TB [2]. Due to its perception as a 'disease of development', road traffic accidents and related injuries tend to be under recognized as major health problems in developing countries. According to WHO report, 90% of the world's fatalities on the roads occurred in low-income and middle-income countries, which have only 48% of the world's registered vehicles [1]. For example, an estimated total of 227, 835 pedestrians died in low-income countries, as opposed to 161,501 in middle-income countries and 22,500 in high income countries each year [3].

The severity of road traffic crashes is also likely to be much greater in Africa than anywhere else, because many vulnerable road users are involved, poor transport conditions such as lack

of seat belts, overcrowding, and hazardous vehicle environments. The poor reporting system has also masked the magnitude of the problem in Africa. The lack of pre-hospital and hospital emergency care after accidents makes the outcome of car accidents in Africa the worst [4]. According to federal police commission report the death rate due to car accident is significantly increasing among pedestrians and passengers from time to time in Ethiopia [5]. A total of 25,110 accidents and 3,415 fatalities were recorded in Addis Ababa during 2000-2009. The majority of fatalities were pedestrian, 2970(87%) followed by passengers 297(9%) and drivers 148(4%) [6]. In 2007/8, a total of 15,082 accidents occurred in the country. Of them the number of people killed was 2,161 while 7,140 experienced non-fatal injuries (7). A report from traffic Police office of Dire Dawa city indicated that in 2005, there were a total 217 RTAs and in 2009 the total number RTAs increased to 322. Therefore, this study focused on the road traffic car accident magnitude, causes and possible intervention and analysis the problem created by road traffic car accident and its consequence in Dire Dawa city.

2. Methods

2.1. Study Area

Dire Dawa city is one of the largest cities in the eastern parts of Ethiopia, on the Dechatu River, at the foot of a ring of cliffs that has been described as "somewhat like a cluster of tea-leaves in the bottom of a slop-basin." With a latitude and longitude of 9°36′N41°52′E / 9.600°N 41.867°E Coordinates: 9°36′N41°52′E / 9.600°N 41.867°E, which locate about 500 km far from Addis Ababa (the capital city of Ethiopia). Based on the 2007 Census conducted by the CSA of Ethiopia, Dire Dawa has a total population of 341,834, of whom 171,461 are men and 170,461 women; 233,224 or 68.23% of the population are urban inhabitants. The city has many industrial and market center. It seems due to this reasons that there is a high inflow of vehicle, which coupled with fast population growth rate that exaggerated the problem of road traffic accident in the city. Car accident is extensively distributed in the city and the number of accident increase rapidly from day to day.

2.2. Nature of Data

The present study is based on secondary data obtained from the police records of the accident cases in Dire Dawa city Police station from February 2009 - August 2013 G.C. Besides, other relevant information's were collected from the concerned officials through interviews and personal discussions.

2.3. Statistical Analysis

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 20.0 and MINITAB version 13.1 software. P value below 0.05 was considered as statistically significant.

2.4. Data Interpretation

The following methods were applied to analyze the data.

2.4.1. Two Sample T - test of Independence

Applied to test the significant different between the number of accident committed on Work day and some celebrated day (Saturday, Sunday and holydays) and the number of accident committed by young driver and old driver.

Hypothesis

H_o: $\mu_1 = \mu_2$ (the mean number of accident committed on workday and celebrated day are equal)

H_o: $\mu_1 = \mu_2$ (the mean number of accident committed by young driver is equal to old age driver)

Decision: reject H_o if P-value is less than α - level of significant

2.4.2. Chi-square (χ^2) Test of Association

Test for association or independency: Chi-square test of association is applies for testing whether there is significant different in the fatality or not among commonly observed of collision. There are two variable (categories) one is type of collision and second is severity or fatality .There are six type of collision and the severity of accident has three levels. These are fatal, medium injury and light injury.

Hypothesis:

H_o: the fatality and type of accident are not associated.

H_1: the fatality and type of collision are associated.

Decision rule:

We reject H_o if P-value is less than α - level of significant or the calculated chi-square value less than the tabulated value.

2.4.3. Analysis of Variances (ANOVA)

Analysis of variable or ANOVA is used to test a hypothesis concerning the mean of three or more than population.

One – way analysis of variance: used to test whether the number of death observed due to car accident in different type of place in the city is shown significant difference or not and whether the number of accident is significant different from the shape of the road.

Hypothesis

H_o: $\mu_1 = \mu_2 = \ldots = \mu_7$ (the mean number of accident committed is equal in all seven type of place) vs. H_1: At least one type is different.

H_o: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$ (the mean number of accident equal in five kind of road shape) vs. H_1: At least one is different.

Fisher's least significant difference

Fisher multiple comparisons is applied for further comparison of mean number of accident committed in different type of place

Hypothesis:

H_o: the mean of accident in the path place is equal to the path place

H_1: Not H_o

Decision rule: Reject H_o if p-value less than α -level or the

calculated value less than tabulated or the difference between the two means not include Zero.

Two-way analysis of variance: used to test whether there is significant interaction effect between the number of accident committed by types of car and types of place of accident occurred and the type of road shape and the cause car accident committed. There are five type of road shape and five cause of car accident where both of them are fixed effect.

Hypothesis for number of accident committed by types of car and types of place

For treatment A (cause of accident)

H_o: $\alpha 1 = \alpha 2 = \alpha 3 = \alpha 4 = \alpha 5 = 0$(The numbers of accident committed due to all five causes are equal)

For treatment B (shape of road)

H_o: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta 5 = 0$ (The numbers of accident committed in all road shape are equal)

For the interaction A and B

H_o: $\alpha\beta 11 = \alpha\beta 12 = \cdots = \alpha\beta 55 = 0$ (there   is interaction between the cause of accident and road shape)

Hypothesis for the type of road shape and the cause car accident committed.

For cause of accident

Ho: $\alpha 1 = \alpha 2 = \alpha 3 = \alpha 4 = \alpha 5 = 0$ (The numbers of accident committed due to all five causes are equal) vs. H1: At least one inequality.

For the road shape

H_o: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta 5 = 0$ (The numbers of accident committed in all road shape are equal) vs. H_1: At least one inequality.

For the inter reaction

H_o: $\alpha\beta 11 = \alpha\beta 12 = 0$ (there is inter reaction between the cause of accident and road shape)

H_1: At least one inequality.

2.4.4. Design of Factorial Experiment

The effect of two or more factors on the response variable can be studied simultaneously in an experiment.

The general three factorial experiments: the general three factorial experiments is applied for testing the individual and interaction effect of weather condition, shape of road and the type of road surface on the occurrence of accident.

For interaction of A, B and C

H_0: $\alpha\beta\gamma 111 = \alpha\beta\gamma 112 = \alpha\beta\gamma 123 = \cdots.\alpha\beta\gamma abc$ (there is no three interaction effect between shape of road, road surface and weather condition).

Hypothesis:

For factor A (shape of road)

Ho: $\alpha 1 = \alpha 2 = \alpha 4 = \alpha 5 = 0$ (the number of accident is the same on all kind road shape)

For factor B (road surface)

Ho: $\beta 1 = \beta 2 = \beta 3 = \cdots \beta 4 = 0$ (The numbers of accident committed on difference type of road surface are the same).

For factor C (weather condition)

Ho: $\gamma 1 = \gamma 2 = \gamma 3 = \cdots. = \gamma c = 0$ (the number of accident committed at different air condition has not difference).

For interaction of A and B

Ho: $\alpha\beta 11 = \alpha\beta 12 = \cdots = \alpha\beta ab = 0$ (shape and type of road surface has not interaction effect on the occurrence of car accident).

For interaction of A and C

Ho: $\alpha\gamma 11 = \alpha\gamma 12 = \ldots = \alpha\gamma ac = 0$(shape of road and air condition has no interaction effect on the occurrence car accident).

For interaction of B and C

Ho: $\beta\gamma 11 = \beta\gamma 12 = \cdots. = \beta\gamma bc = 0$ (shape of road, road surface and air condition has not interaction effect on the occurrence of car accident).

Decision: Reject the null hypothesis if F-calculate is greater than tabulation value or p-value is less than α-level.

3. Results

3.1. Descriptive Statistics

Table 1. *Descriptive Statistics: death, heavy injury, light injury, number of accident.*

Variable	Mean	StDev	Minimum	Maximum	Q1	Q3
death	21.20	3.83	16.00	26.00	17.50	24.50
heavy injure	47.20	12.85	31.00	63.00	34.50	59.00
light injure	88.40	12.70	72.00	104.00	77.50	101.00
no of accident	276.8	41.8	217.0	322.0	236.5	314.5

From Table1 the calculated mean number of death, heavy injury, light injury and number of accident was 21, 47, 88 and 276 respectively. From the value of their StDev, the numbers of accident showed more variation in five-year period, but the number of death is showed less variation.

About 80% of accident was committed by driver fault or factor (see Figure1). Driver factor includes like driver error, intoxication, not giving priority for pedestrian and other vehicle and other human factor. Defect on road design and maintenance accounted about 9% of accident, and took the second place for cause of car accident. The defect on road either noted as making a significant contribution to the circumstance of the crash, or not allowed for recovery. In these circumstances, it is frequently the driver who is blame rather than the road; those reporting the accident have tendency to overtake the human factor involved, such as the subtlety compensate for it. Weather and environmental condition totally accounted about 6% the accident occurred. This factor includes bad weather condition like heavy rainfall, unsuitable temperature and dangerous topographic area. Dangerous topographic area either noted as making a significant contribution to the circumstance of the crash, or not allowed for recovery. Defect with the car accounted about 5% accident committed, and this facer includes like defect in brake, front.

Among the fault of driver not giving priority to pedestrians, took the leading position in the cause of higher number of death and injury. This implied that not giving

priority to pedestrians was the main cause of traffic road accident and the loss of life. The second main cause for road traffic accident death and injury was over speeding. Not giving priority to vehicle took the third position and this accident mainly happened between vehicle especially at T-shape and +-shape road. Over taking and driving in left direction found at fourth and fifth place, and this accident mainly observed in straight road when driver try to pass other vehicle. Over loading, not keeping the distance between vehicle and drive after drink alcohol found at six, seven and the last position respectively.
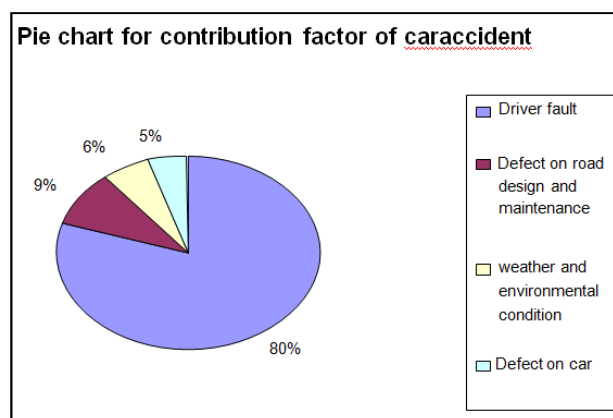

Figure 1. *Pie chart for contribution factor of car accident.*

3.2. Two-Sample T-Test

Table 2. *Two-Sample t-test for Work day vs. Saturday, Sunday and holydays.*

Days	Mean	StDev	SE Mean
Workday	82.4	9.7	3.1
Saturday, Sunday and holydays	90.4	11.0	4.9
Estimate for difference: -8.00, 95% CI for difference: $(-26.13, -10.13)$, t-test of difference $= 0$ (vs. not $=$); t $-$ Value $= -1.02$; p $= 0.03$, DF $= 8$, PooledStDev $= 12.4$			

The P-value of t-test statistic for mean comparison of accident committed between work day and some celebrate day like Saturday, Sunday and holiday is less than the specify α-level (0.05). Hence the occurrence of accident in workday and some celebration day had significant different.

The 95% confidence of interval is not including Zero in the interval; this showed that the occurrence of accident is different between workdays and holidays. This variation may come from the drinking alcohol during the last days of week and holiday by both driver and pedestrians. Another factor is many people out for marketing in holiday and higher traffic cognitions may be happened.

Table 3. *Two-sample t-test for Age<35 vs. Age> 35.*

Age	Mean	StDev	SE Mean
Age<35	166.8	28.0	13
Age>35	108.8	14.7	6.6
Estimate for difference: 58.0, 95% CI for difference: (25.4, 90.6), T-Test of difference = 0 (vs. not =): T-Value = 4.1, P-Value = 0.003 DF = 8, Pooled StDev = 22.4			

The P-value of t-test statistic for mean comparison of accident committed between drivers whose age is less than 35 year old greater than 35 year old is less than specified α - level. Hence, the driver whose age is less than 35 year had higher risk of committing accident than driver whose age is greater than 35 year. The driver capability is affected by the physical and mental to assess the condition and respond quickly. Although young people tend to have good reaction time, disproportionately younger driver features in accident. Young driver showed many exhibit behaviors and attitude to risk that them in the more hazardous situation. Old driver with slower reaction would be expected to be involving in more accident. However, there had been the case as tend to drive less and apparently, more cautiously.

3.3. Chi-Square Test: For Testing the Severity of Different Type of Accident

Table 4 indicated that the p-value of chi-square test is less than the α-level of significant. Then, we can conclude that there is dependency or association between the type of road accident and the severity of damage. From the test one could observe the expected death for the car which rollover is 12 and the actual death occurred is 24. The number of actual death is twice that of expected, this show rollover is fatal car accident.

Table 4. *Testing the severity of different type of accident.*

	fatal	medium	easy	Total
1	7 38	45	90	
	11.33	32.16	46.51	
2	5	31	61	97
	12.21	34.67	50.13	
3	24	42	29	95
	11.95	33.95	49.09	
4	2	22	74	98
	12.33	35.02	50.64	
5	16	41	51 108	
	13.59	38.60	55.81	
6	21	39	48	108
	13.59	38.60	55.81	
Total	75	213	308	596
Chi-Sq = 62.428 DF = 10 P-Value = 0.000				

The next fatal accident the collision with pedestrian the expected number of death is 14 but the actual death occurred is 21, this showed that the collision with pedestrian had higher mortality. Collision with bicycle had expected death of 14 accidents is in high risk of death. The main reasons for the fatality of cyclist have little protection other than their clothing. Side or angle collision, Head on collision and Rear impact collision had lower actual death than expected.

3.4. Analysis of Variances (ANOVA)

The P-value analysis of variance for the number of death occurred in different kind of place is less than our α-level (0.05) of significant. Then, investigation concluded that the

type of place had significant effect on the number of accident committed and death. To decide which pairs of treatment are different we use fisher least significant difference.

Table 5. One-way ANOVA for Number of death vs. type of accident place.

Source	DF	SS	MS	F	P
Factor	42.69	7.11	6	6.00	0.000
Error	28	33.20	1.19		
Total	34	75.89			

Fisher's pair wise comparisons
H_o: $\mu_i - \mu_j = 0$ vs. H_1: $\mu_i - \mu_j \neq 0$ for $i \neq j$
Intervals for (column level mean) - (row level mean)

	Churches	Factories	Hospital	Market	Offices	Residence
Factories	0.59					
	3.410					
Hospital	-0.610	-2.610				
	2.210	0.210				
Market	2.010	-4.010	-2.810			
	0.810	-1.190	0.010			
Offices	-3.010	-5.010	-3.810	-2.410		
	-0.190	-2.190	-0.990	-0.410		
Residence	-0.810	-2.810	-1.610	-0.210	0.790	
	-2.010	-0.010	1.210	2.610	3.610	
school	-0.210	-2.210	-1.010	0.390	1.390	0.810
	2.610	0.610	1.810	3.210	4.210	2.010

The above fisher multiple comparisons contains the confidence interval of the difference for each pair of treatment group. Among the pairs, the difference between death occurred at office and all other place is not include zero. So, the number death occurred at office is larger than other. As most of the office, especially business offices are found near or follow main road. They will be crowded with people and the vehicle during peak hour. Thus, violation of traffic rule and regulation (such as over speeding, overtaking other vehicle unlawfully, etc) is likely resulted in traffic accident. Religious place market and residential place also had higher death next to office.

One –way ANOVA for the shape of the road vs. number of accident

From Table 6, the p- value of the analysis of variance for the shape of the road and the number of accident committed is less than our α-level of significant. Then, we concluded that the shape of road had significant effect on the number of accident committed. To decide which pairs of treatment are different, we use fisher least significant difference.

Table 6. One-way ANOVA: no of accident versus road shape.

Source	DF	SS	MS	F	P
road shape	4	5792.6	1448.1	32.85	0.000
Error	20	881.6	44.1		
Total	24	6674.2			

Fisher's pair wise comparisons
H_o: $\mu_i - \mu_j = 0$ vs. H_1: $\mu_i - \mu_j \neq 0$ for $i \neq j$
The below fisher multiple comparisons contains the confidence interval of the difference for each pair of

treatment group. This allows assessing the practical significant between among mean of accident committed on different type of road.
Intervals for (column level mean) - (row level mean)

	+-shape	circle	straight	T-shape
circle	-14.641			
	32.159			
straight	-24.159	-47.559		
	-6.641	-30.041		
T-shape	-7.441	-15.959	22.841	
	24.959	1.559	40.359	
Y-shape	-15.241	-8.159	30.641	-0.959
	32.759	9.359	48.159	16.559

The different between the mean number of accident committed on straight road without joint and all other kind of road shape is not included zero. Then, we can conclude that there was significant difference between mean of number of accident occurred at straight road and other road shape. Most of the difference between the mean accident occurred of the other pair of group has zero. So, we conclude that there was no significance difference occurrence of accident between those groups. The main factor that the number of accident committed on straight road is greater than driving above the allowable speed.

3.5. Two-Way ANOVA

Table 7. No of accident versus places and types of car.

Source	DF	SS	MS	F	P
places	3	6343	2114	4.86	0.028
types of car	3	28373	9458	21.72	0.000
Error	9	3919	435		
Total	15	38635			

The p-value for the treatment group or the type of car is less than the specified α-level of significant. Hence, there is significant difference effect difference on the occurrence of accident among five kinds of car. That is (Tax, three wheel vehicle, Minibus and Isuzu). From the 95% confidence interval for mean number of accident committed by different type of Vehicle, the number of accident committed by tax and three wheel vehicles had not significant difference. The main cause for this result was the rapid increase in number of three-wheel vehicle replacing of tax service. However, there is evident variation in the number of accident committed by tax and three-wheel vehicle compared to other.

3.6. Two - Way ANOVA

Table 8. Number of accident vs. cause of accident and shape of road.

Source	DF	Seq SS	MS	F	P
shape	4	9904.8	2476.2	119.8	0.004
cause	4	9 449.6	2362.4	100.9	0.025
shape*cause	16	51189.6	3199.3	56.2	0.009
Error	25	478	19.2		
Total	49	71022.0			

The P- value for the column factor (cause of accident and shape of road) is statistically significant. This showed that there was significant difference between the numbers of accident committed due to these factors. The P-value for interaction of two variables (shape of road and cause of accident) was statistically significant. This implied that there is an interaction effect, which maximizes or minimizes the occurrence of accident between the two variables.

3.7. Analysis of Variance for the General Three Factorial Experiments

Table 9 indicated that except road surface, the P-value for each individual factor is statistically significant. Thus, the occurrence of accident was significantly affected by weather condition and shape of road.

General Linear Model: Number of accident versus shape, road surface and weather condition.

Table 9. Response versus shape, road surface, weather.

Source	DF	Seq SS	Adj SS	Adj MS	F	P
shape	4	4101.9	4101.9	1025.5	3.54	0.032
road surface	2	5140.3	5140.3	2570.1	5.60	0.46
weather	1	4915.2	4915.2	4915.2	4.8	0.043
shape*road surface	8	14407.7	14407.7	1801.0	8.2	0.005
shape*weather	4	7787.5	7787.5	1946.9	1.91	0.018
road surface*weather	2	540.8	540.8	270.4	1.96	0.020
shape*road surface*weather	8	32444.5	32444.5	4055.6	2.86	0.039
Error	8	9748	9748	1219		
Total	37	79085.9				

The P-value for the two interaction effects of shape of road * road surface, shape of road*weather and weather condition*road surface were significant. This showed that the interaction of those factors had significant effect on the occurrence of car accident. The P-value for the interaction of those three factors was also significant; hence, the interaction of those factors had effect on the occurrence of accident. The interaction effect of three-factor showed that there is condition where the occurrence of accident effect of three-factor showed maximum or minimum. For instance from table the occurrence of accident when the road surface is good asphalt, at good weather condition and the road without joint is maximum. Conversely, there is minimum number of accident occurrence at condition when the road is not asphalt at cloudy weather condition and at circle place. It has safely said that many places, which look difference dangerous, did not have accident or very few. Conversely, a location that did not look difficult or dangerous may have a high crash frequency. If the driver perceiver allocation as hazardous, they take more care and there is no accident. Accident happened where hazardous road or traffic condition are not obvious at glance.

4. Discussion

The aim of this study was to identify the major factors that affect the occurrence of traffic accidents at Dire Dawa city, eastern Ethiopia based on secondary data obtained from the police records of the accident cases in Dire Dawa city Police station. Methods used for data analysis were Chi-square, two sample t-tests, ANOVA and design of factorial experiment.

The overall findings of this study indicate that the prevalence of road traffic accidents was associated with various factors. In Dire Dawa city, nearly 80% of the risk factors were associated with driver fault (human risk behavior) which is a similar finding to a study conducted in Mekele town, where 96% of the causes of road traffic accidents were related to human risk behavior [8].

Not giving priority to pedestrians is the most potent contributor to road traffic accidents in Dire Dawa city and some other countries like Nigeria and India [9]. For example, a study conducted in India indicated that human characteristics, such as rushing and negligence make up 95.4% of the total road traffic accidents [10].

Speeding is another factor which took the second place crashes in Dire Dawa city. In Amhara National Regional State, Ethiopia, the speed factor alone accounted for more than 31.5% of the crash. Reducing vehicle speed was one of the most effective interventions employed to stem traffic crashes on Amhara region roads [11].

The majority of accidents were occurring by drivers whose age is less than 30 years and the minimum accidents were occurring by drivers whose age is greater than 30 years old. The study concluded that as age of drivers' increase the occurrence of accidents will minimize. The majorities of accidents at Dire Dawa city were due to pedestrian's wrong crossing of the road and this study concluded that awareness should make for the communities by the responsible body to decrease accidents at city. Poor pedestrians manner in giving priorities to vehicles where necessary was statistically significant factors for the occurrence of road accidents at Dire Dawa city and the study concluded that there is better to make awareness for pedestrians to minimize the traffic accident in the area.

5. Conclusion and Recommendation

The result of the study revealed that the occurrence of accident depends on the defect of one of the following characteristics. These are: human factor, vehicle characteristics, road characteristics and environmental condition. Human factor include drivers and pedestrians (in most case, the victims). The finding of the study indicated that accident was caused by driver fault, especially by not giving priority to pedestrians which account 48% of the total accident. The age driver, Have also a significant impact on the occurrence of traffic accidents. Accident is also highest depending on environmental factor like weather condition, type of road surface, the condition of the road and the shape of the road joint. The finding of this study also indicated that most traffic accident occurred in the city are at good air condition on good asphalt and road with no joint. Accident committed at workday show less value when compared to

accident occurred at holiday and the last day of week. This evident variation may come from drinking alcohol and chewing chat both driver and pedestrians those celebrated days.

Abbreviations

AIDS	Acquire Immune Deficiency syndrome
ANOVA	Analysis Of Variance
CSA	Central Statistical Agency
HIV	Human Immunodeficiency Virus
RTA	Road Traffic Accidents
TB	Tuberculoses
WHO	World Health Organization

Authors' Contributions

BM carried out the paper starting from conception, analysis, and interpretation of data and drafted the manuscript. ZD participated in data analysis and interpretation and critical review of the paper. Both authors read and approved the final draft of the manuscript.

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