Causal Attribution of Road Traffic Accident by Drivers and Victims in Gondar City, Ethiopia

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Abstract

A cross sectional research design is used to assess causal attribution of road traffic accident among drivers and victims in Gondar city, Ethiopia. In order to get the sample population purposive sampling method for victims and accidental sampling technique for taxi drivers was used. Means, independent sample t-test, and one way analysis of variance were used for analysis. Drivers attribute traffic accident more too external factor as context and luck where as victims attribute to traffic accident to internal factors. The different age group attributes the existence of road traffic accident more of internal factors. Married divers attribute more of internal factors and unmarried more of external factors for road traffic accident. The researcher recommends that there should to be proper implementation and design of traffic rules by considering the nature of drivers and victims behavior.

Key words: Accident, Causal Attribution, Drivers, Road Traffic, Victims

Introduction

The Global status report on road safety (2015), reflecting information from 180 countries, indicates that worldwide the total number of road traffic deaths has plateaued at 1.25 million per year, with the highest road traffic fatality rates in low-income countries. The severity of road traffic crashes is also likely to be much greater in Africa than anywhere else, because many vulnerable road users are involved and poor transport conditions exist. Evidences noted that human behavior is the most common factor accounting for more than 85% of all traffic accidents (Peden et al. 2004). Among the risky human behaviors is driving over the recommended speed, taking alcohol and driving, not using seat belt while driving is additional risky behavior identified. Mobile phoning while driving is becoming one of the riskier behaviors as well. Knowledge, belief, attitude on risky driving behaviors and driving experience were also important aspects of risky behaviors identified with evidences. Since evidences are directing us the most important factor for road traffic accident is human behavior, constantly searching for the cause behavior Heider (1958) is one of the major attributes.

People broadly attribute the causes of behavior either to internal or external factors. An internal attribution is causes that are associated with the person's innate characteristics such as personality traits, moods, attitudes, abilities or efforts. An external attribution on the other hand, is the causes that are external to the person, such as the actions of others, environmental situation or luck. Weiner, B. (2008) noted that Ability, effort, task difficulty and luck are the four attributional styles to which people ascribe their behavior. On the other hand it might be Stable (relatively constant) or Unstable (readily modified) causes.

Attribution theory argues that people's interaction with their environment is guided by a series of world views. Such world views smooth day to day behavior by enabling the person to anticipate the likely consequences of their actions, thereby reducing uncertainty. World views are developed and modified by the person seeking the causes of events occurring around them. The Behavioral Consequences of Different Attribution's for Skilled Performance will reflect the type of attribution they make for the outcome (Donald et al. 1991). Hence, the major internet of this study is exploring how drivers and victims attribute the occurrence of road traffic accident in Gondar city, Ethiopia.

Objectives of the study

The main objective of this study is to assess the attribution of traffic accident by taxi drivers and victims in Gondar city. In light of the general objective, the specific objectives are:

Explore the attribution of traffic accident by drivers.

Explore the attribution of traffic accident by victims.

To assess the attribution of drivers across demographic variables

To assess the difference between drivers and victims in attribution to traffic accident

Method

The research design used in this study is cross sectional research design mainly quantitative approach. The target population of this study was taxi drivers of Gondar city, Ethiopia and road traffic accident victims. In order to get taxi drivers accidental sampling method was used by targeting the major terminals. For victims purposive sampling technique was used to select individuals who are a victim of road traffic accident from the information got from Gondar University referral Hospital and Gondar city transport authority.

The instrument used in this study was developed by considering the appropriateness of the instrument to the target sample. The open ended questionnaire consists of 24 items including effort, ability, context and luck items. In addition, open ended questionnaire was designed so as to get additional information in this regard.

The analysis techniques used in this study are means for assessing internal or external attribution of traffic accident, independent sample t test for identifying the difference in attribution among married and unmarried drivers, and one way analysis of variance was used to assess attributional difference across the different age group and educational status of drivers.

Results

Causal Attribution of Taxi Drivers to road Traffic Accidents

Drivers were more attributing to traffic accident to external factors (context and luck) than internal factors (Ability and effort). From the qualitative data gathered the driver more attribute external causes like road problem, traffic light problem, technical problem of the car ,over speed , using different drugs , the passenger not knowing the role of the traffic ,because of bad luck.

There were no statistically significant mean differences among married and unmarried taxi drivers in the causal attribution of traffic accident. It is shown that there was no statistical significant difference in the causal attribution of drivers to context $t(107) = -.699$, $P > 0.05$, two tailed. With regard to luck there was also no statistical significant mean difference among the married and unmarried taxi drivers in their attribution to traffic accident to luck $t(107) = -.730$, $P > 0.05$. However, unmarried divers attribute more of external attribution compared to married.

On the other hand, married better attribute causal attribution to traffic accident to internal factor (Ability and effort) than unmarried even though there was no statistical significant mean difference in ability $t(107) = -.759$, $P > 0.05$ and effort $t(107) = -.554$, $P > 0.05$ two tailed.

Causal Attribution of road Traffic Accident by taxi Drivers across the different age group

The findings that there was no statistically significant mean difference across the different age group of taxi drivers for context ($F(2, 108) = 0.79$, $P > 0.05$), Ability ($F(2, 108) = 0.151$, $P > 0.05$), effort ($F(2, 108) = 0.284$, $P > 0.05$) and for luck ($F(2, 108) = 0.76$, $P > 0.05$).

In terms of attributing the cause of traffic accident to either internal such as ability of driving and the effort the driver exerts or external factors such as road, and road behavior and luck, the different age group attribute more of external factors.

With regard to educational level there was no statistical mean difference among taxi drivers. However, in terms of attributing the cause of traffic accident by taxi drivers either internal or external causes, 9 - 12 completed attribute more of internal factors than 1- 8 and diploma and above holders respectively.

The result also shows that 1-8 completed were more attributing to external factors such as road behavior, pedestrians for the cause of traffic accident than 9 -12 completed and diploma and above holders.

Causal Attribution of victims to road Traffic Accidents

Victims were more attributing to traffic accident to internal factors (Ability and effort) than external factors (context and luck).

From the open ended questionnaire gathered the victims were more attribute internality like the ability of driver, lack of awareness about technical problem of the car, carelessness, lack of ability, not knowing the role and regulation of traffic road, not giving opportunity to pedestrian, by over speeding, not getting the proper training and the existence of forged licensed drivers.

Discussion

Most empirical evidences showed that people are attributing internally when there is success and attributing externally when there are failures. When we see the work of classical attributional theory like Heider (1958) and Weiner (1985) they assert that people have a tendency of attributing success to internal factors and failure to external factors. The finding of this study shows that Drivers were more attributing to traffic accident to external factors (context and luck) than internal factors (Ability and effort) implies that they attribute the failure to external factors than internal factors. However, victims attributing the encounter of road traffic accident to external factors like the ability and effort factors of the drivers than luck and contextual factors exist at a time.

There is a difference between younger and older drivers (Donald et al 1991). This finding shows that there was no statistically significant mean difference across the different age group of taxi drivers however young males, are at least in part responsible for the high accident rates Moyano (2002). On the other hand, for achievement situations, younger adults made more interactive attributions for ambiguous events (Blanchard 1994). The different age groups attribute more of external factors. Imamoglu (1976) showed that a developmental lag was revealed in the attributive behavior with respect to the disliked-actor condition.

Drivers of secondary education were more likely to have risky driving behavior (Abrahim et al. 2011). Though there was no statistical mean difference among taxi drivers across the different educational status in this study, high school completed are attribute more of internal factors than elementary completed and diploma and above holders.

Recommendation

Road traffic accident has a huge economic impact. However, it is not limited in its loose in economy but also social and psychological impact on people. So as to reduce it, holistic approaches from different disciplines and different organizations or institutions are needed. As a result due to its predictability and there for preventable nature much has to be done on human capitals by structuring and restructuring of drivers cognition. In addition, there should to be proper implementation and design of traffic rules by considering the nature of drivers and victims behavior.

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Table 1 Causal Attribution of Taxi Drivers to Traffic Accidents

Variables	N	Mean	Maximum	Minimum
Context	109	4.0257	5	1
Ability	109	3.6000	5	1
Effort	109	3.5229	5	1
Luck	109	3.6000	5	1

Table 2 Attribution difference among married and unmarried taxi drivers

Variables	Marital status	N	Mean	t	P
Context	Married	55	3.9500	-.699	.487
	Unmarried	54	4.0762		
Ability	Married	55	3.7000	.759	.451
	Unmarried	54	3.5333		
Effort	Married	55	3.4571	-.554	.581
	Unmarried	54	3.5667		
Luck	Married	55	3.4821	-.730	.468
	Unmarried	54	3.6786		

Table 3 Causal Attribution of Traffic Accident by taxi Drivers across the different age group

Variables	Age group	N	Mean	F	P
Context	21-25	37	4.0308	.679	.511
	26-30	36	4.1259		
	>30	36	3.8588		
Ability	21-25	37	3.5231	.151	.860
	26-30	36	3.6370		
	>30	36	3.6588		
Effort	21-25	37	3.5077	.284	.753
	26-30	36	3.4593		
	>30	36	3.6471		
Luck	21-25	37	3.6538	.076	.927
	26-30	36	3.5370		
	>30	36	3.6176		

Table 4 Causal Attribution of Traffic Accident by Taxi Drivers in Educational level

Variables	Educational level	N	Mean	F	P
Context	1-8 completed	33	21.22	.802	.453
	9-12complited	40	20.24		
	Diploma & Above	36	19.40		
Ability	1-8 completed	33	18.66	.143	.867
	9-12complited	40	18.87		
	Diploma & Above	36	17.90		
Effort	1-8 completed	33	16.77	.588	.558
	9-12complited	40	18.04		
	Diploma & Above	36	17.10		
Luck	1-8 completed	33	6.55	.806	.451
	9-12complited	40	7.46		
	Diploma & Above	36	6.95		

Table 5 Causal Attribution of victims to Traffic Accidents

Variables	N	Mean	Maximum	Minimum
Context	67	3.3733	5	1
Ability	67	3.8800	5	1
Effort	67	3.8400	5	1
Luck	67	3.9667	5	1