Why People Violate Traffic Rules in Pakistan?

Ghulam Shabir[1*]   Muhammad Natiq Hayat[2]   Naqvi Hamad[3]

1.National College of Business Administration & Economics, Lahore Campus Dera Ghazi Khan

2.Punjab Emergency Service Rescue 1122 Dera Ghazi Khan

3.Ghazi University Dera Ghazi Khan

Abstract

Road safety is an important agenda for the developing countries and the situation has become worsened particularly in Pakistan. Most of the accidents are resulting due to the traffic rules violation in Pakistan. The purpose of this study is to explore the factors that may helpful in the controlling of traffic rules violation and mitigation of road traffic accidents in Pakistan. The objectives of this study was to identify the traffic safety problems in Pakistan, to determine effectiveness of education and awareness programs regarding traffic safety rules and also determined the effectiveness of law enforcement to control the traffic rules violation.The methodology used is empirical and quantitative. Data is collected from the all provinces of Pakistan. The targeted population is the Secretary RTAs, police officers and officials, professional drivers and common people of these provinces. The population is divided into strata's. Each province is considered as strata and random sample is selected from strata through proportional allocation. The data is collected through questionnaires and interviews. A Likert scale close ended questionnaire was used to collect the data. The sample size was 1200 and the response was 100% after the follow-up. Data is analyzed through empirical study and SPSS software. The finding shows that the traffic rules violation are controlled through the general education; traffic rules awareness programs, effective law enforcement and also identified some potential road safety countermeasures by improving the engineering factor (infrastructures of roads, proper signals and sign boards allocations etc.).

Keywords: Traffic rules violation, education, awareness, enforcement and engineering

Introduction

It is an unfortunate fact that two major issues including health and safety are not given as much importance as the issue perseveres. In this context road safety is also another important agenda for the developing countries and the situation has become worsened particularly in Pakistan. Under the umbrella of Pakistan, various metropolitan cities are lying that are facing the common problems of road safety. The problem of traffic safety in Pakistan is very acute. The road users are not well aware of the basic, standard and updated road safety knowledge that ultimately brings no extending effect on the Engineering and Enforcement minor. The least important factor should be more improved and accomplished which is basically the education of road safety knowledge.

According to 2013 statistics available motor vehicle accidents killed 20,154 people in Pakistan. Another 23,397 were seriously injured. This does not include a vast number of accidents which took place on the highways resulting in varying degrees of personal injuries and property losses, but were never reported. Pakistan world ranking death rate in road traffic accidents is 12th (WLE, 2013). The World Health Organization (2004) estimates that road accidents will become the world third foremost cause of death by the year 2020 if no effective action and measures are taken.

Violating traffic laws is one of clear social harm sign in cities (Evans, 1996).According to the researchers the correlation between driving rules violations and traffic accidents has been glowing recognized in the West over decades (Campbell, 1958; Goldstein, 1972; Levonian, 1969; Streff, 1991). Parker, et.al (1995) found that over and above other variables such as the driver's age, gender and annual distance driven, intentional driving violations made an independent significant influence to traffic accident involvement. Attitudes toward driving violation and traffic safety have been found to be significant predictors of the intention to violate, and significantly correlated with accident risk (e.g., Parker et al., 1995, Rothengatter & Manstead, 1997). During 2011, in India a total of 4, 97,686 road accidents were stated which is a result of lack of speed control and violating the road rules. According to the Zimbabwe Republic Police Manual (2000), the following, among others, are traffic offences: overloading passengers, overtaking where it is prohibited, failing to signal turns, parking dangerously, failing to display reflectors, failing to stop at a stop sign, failing to give precedence at a given way sign, driving through a red traffic light, driving an un-roadworthy vehicle and turning in front of oncoming traffic.

One aspect of human cause's traffic violation has essential social traffic behavior.   Aim of "social traffic behavior" is level of responsibility and duty band of persons to traffic laws which are sanctioned by transportation and traffic authorities and traffic responders. Several studies show that the role of human is the most important reason in traffic violation especially in traffic violation and accidents (Renner and Anderle, 2000; Macdonald et al., 2004, Castellà and Pérez, 2004; Yamamoto et al., 2008). Violating traffic laws can be stated to have lack of feeling social link between citizen and society. This fact is outcome of feeling lack responsibility

and attachment, lack of feeling social responsibility and lack of feeling social involvement among persons and social institution (Appadurai, 1986) Traffic behavior examining is done in two parts (Parker et al., 1992; Rosenbloom & Wolf, 2002) so, better learning track on effect-urbanized traffic behavior on traffic violation is done in two social and cultural aspects. Social trait of traffic behavior is involving of feeling duty and responsibility on base of moral order against "others" (Bandura, 1977; Sterman, 2000). It is the supreme importance that those who are fortunate to drive a vehicle should systematically know the rules of the road. They should be well cognizant of their rights and limitations to avoid creating a hazardous situation on the roads, endangering their own as well as other people's lives. Education is concerned, be safe to assume, without the fear of contradiction, that the majority of the drivers are ignorant of modern traffic safety rules. Their knowledge of traffic safety laws is limited to elementary hand signals used by traffic constables at street intersections. During this research the author interviewed more than 950 of locally licensed drivers but no had the concept of such basic thing as Right-of-Way. 97% admitted that they derived their knowledge directly from the person who trained them how to drive a vehicle which primarily contained of lesson in steering, stopping and starting the vehicle. Nobody remembered seeing the Highway Code. The traffic Foot Constables and even some of the officers were found to be totally ignorant of the traffic safety rules.

Awareness programs and training sessions for the targeted road user should be the rigorous approach; it might be obliging for the fulfillment of several issues containing understanding for traffic laws, safety signs, vehicle ordinance and manufacturing details and road/ environmental conditions (Sadiq, et.al 2010).

Enforcement holds the key position in the whole gamut of traffic planning. Without proper and effective enforcement even the best and most modern highway facilities would be helpless to cope with the traffic problems. A modern traffic police officer has varied responsibilities. He has adopt in the art of providing first-aid to the injured in an accident; should be able to investigate and analyze and accident methodically and systematically; and should be skilful mechanic to provide necessary aid to stranded drivers. He has to be firm, courteous and pleasant. Unfortunately traffic police in this country are in every respect one of the most ill-equipped enforcement agency in the world. Neither are they imparted sufficient training in the art of traffic control nor do they have adequate powers to make speedy enforcement. Even nominal training in the art of traffic control which traffic foot- constable used to receive in the past, is at present frequently dispensed with. The majority of the traffic constables are unaware of the traffic laws and regulations. As a result traffic offences occur under their very noses without their being aware of it. The pathetic attitude of the public towards today's traffic constable stems from the fact that the poor fellow is not properly groomed for his job and in any cases he is unsure of himself. The result of such past policies is self-evident. Previously a traffic foot constable was authorized to chelan the traffic offender but under traffic ordinance 1965 these powers have been withdrawn. Now the traffic foot -constables are mainly engaged in watching traffic, at intersections, go by. The motorists consider him as spectators and treat him with contempt. Traffic Police is an important component of policing that secures lives through proper implementation of traffic laws. A study was conducted in twin cities Rawalpindi and Islamabad to explore the effectiveness of the new Traffic Police system and to judge how it performed comparatively better than that of old traffic police

In an ideal society, police at all times is perceived to be the servants of the people. The society perceives them as custodians of law and management of order. However, the earlier studies revealed that the police often have a conflict with a significant percentage of the population around the globe (Alemika, 1999; Alemika and Chukwuma, 2000).The main factors of this conflict may vary from region to region under specific laws, cultures and social conditions. Radelet and Carter (1994) argue, by far, the biggest conflict between the police and the public occurs in the enforcement of traffic laws. Encounters between police officers and citizens in traffic situations provide a major source of citizens' hostility toward the police (Wilson, 1964). A significant growth of population in developing countries is directly proportional to the traffic chaos; these dilemmas will be extremely hazardous and risky when there is lack of checking and balancing from the traffic law enforcement agencies (Mohan.D and Tiwari.G, 1998).

Engineering is meant physical facilities adequate enough to handle the traffic demand. Very broadly it includes roads with to accommodate the traffic; standard traffic control devices, namely signs, signals and marking to guide the motorist along the route with speed and safety; and removal of conflict points by providing grade separation structures. It is obvious that the road facilities existing in this country are outmoded. Inadequate sight distances, narrow widths high grades, absence of access control and grade separation structures are the factors contributing to high tolls on our roads. The problem of safety is further complicated by the absence of facilities to segregate fast and slow moving traffic. The speed differential created by the presence of animal drawn vehicles in the traffic stream is undoubtedly one of the most dangerous situations faced by the drivers on our highways. Jacobs (1999) the type and standard of roads depend on the level of development of a given community. Thus we have well developed highways in developed economies and dirty potholed duet roads in less developed economies. The type of road has a large bearing on the occurrence of accidents and thus Jacobs, et al (2000) believe there is high prevalence of road accidents in less developed economies.

After decades of concerted research in the United States and other western countries, it has been established that the key to the traffic problems lies in a simple principle known as three Es namely Education, Enforcement and Engineering. But according the researcher along with these principles another thing is most important that is awareness. So the traffic rules violation may be mitigated thorough these factors.

Methodology

The methodology used is empirical and quantitative. Data is collected from the all provinces of Pakistan. The targeted population is the Secretary RTAs, police officers and officials, professional drivers and common people of these provinces. The population is divided into strata's. Each province is considered as strata and random sample is selected from strata through proportional allocation. The data is collected through questionnaires and interviews. A Likert scale close ended questionnaire was used to collect the data. The sample size was 1200 and the response was 100% after the follow-up. Data is analyzed through empirical study and SPSS software.

Conceptual framework

The conceptual frame work is design to understand the factors on which the traffic rules violation depends in Pakistan. According to framework the main factors that influenced the traffic rules are education, awareness, enforcement and engineering. Enforcement also effected by   rules intuition by authorities, political barriers, corruption and officers or seniors interruption in the duties of operational staff.
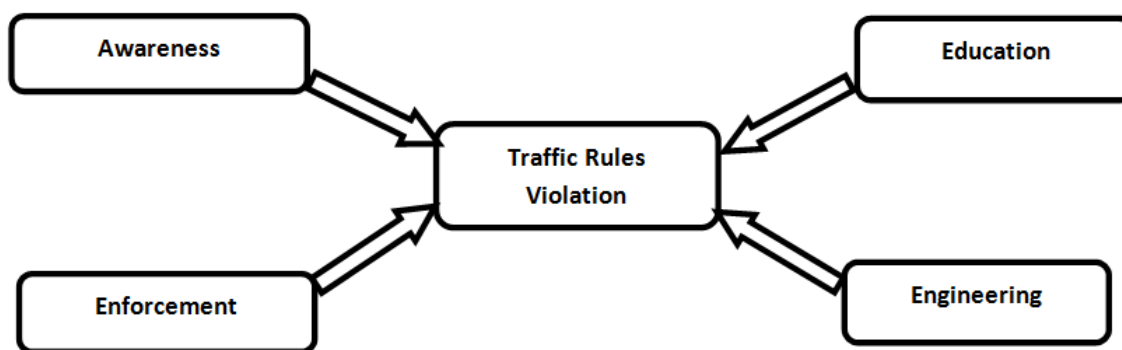
Model shows the factors that influenced on the traffic rules violation.

Additive model is used here. Equation for the representation of the models is given as,

$$Y_i = \alpha + \beta x_i + \varepsilon_i$$

Here is, Y_i represents the dependent variable, α denotes the constant, β is regression coefficient of independent variables, x_i represents the independent variables also called as explanatory variables and ε_i denotes the random error. So equation representing our conceptual frame work is given as,

$$Y (TRV) = \alpha + \beta (EDU) + \beta (AWR) + \beta (ENF) + \beta (ENG) + \varepsilon_i$$

Here is, (TRV) represents the dependent variable traffic rules violation, β (EDU) is independent variable and represents the education, β (AWR) represents the independent variable awareness, β (ENF) represents the enforcement independent variable, β (ENG) is independent variable represents the factor engineering of roads and vehicles.

Hypothesis:

Traffic rules violation is dependent variable while the education, awareness, enforcement and engineering are independent variables. Following hypotheses are generated on the basis of conceptual framework.

H_1:   Education has positive and significant impact on traffic rules violation.

H_2:   Law awareness has positive and significant impact on traffic rules violation.

H_3:   Enforcement has positive and significant impact on traffic rules violation.

H_4:   Engineering has positive and significant impact on traffic rules violation.

Data Analysis

The data is analysed quantitatively by using statistical package for social sciences to analyse the data (SPSS). The findings arising from the survey as well as the outcomes four of tested hypotheses are hereby presented and discussed below,

Model summary

Model	Std. Error of the Estimate	R Square	Adjusted R Square
1	.13431	.978	.978

a. Predictors: (Constant), ENG, EDU, AWR, ENF

The R^2 in the model is .978 which means that the independent variables (EDU) education, (AWR) awareness, (ENF) enforcement and (ENG) engineering can explain 97.8% of change in the dependent variable. The adjusted R^2 demonstrates that 97.8% of the variances are explained in this model. In this model standard error of estimate is 13.431% that explains the standard deviation of the estimate (Factors in this model which could affect the traffic rules violation).

ANOVA Analysis
ANOVA [a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	396.071	4	99.018	5489.286	.000[b]
	Residual	8.929	1195	.018		
	Total	405.000	1199			

a. Dependent Variable: TRV
b. Predictors: (Constant), ENG, EDU, AWR, ENF

The researcher used four variables that are acting as independent variables and model shows the significant impact of these variables on dependent variable traffic rules violation in Pakistan.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.079	.056		91.381	.000
	EDU	.444	.004	.861	117.281	.000
	AWR	.024	.008	.024	3.056	.002
	ENF	5.214	.058	.780	89.182	.000
	ENG	.244	.009	.242	27.507	.000

a. Dependent Variable: TRV

Beta explains the contribution of each independent variable. (EDU) education with beta coefficient of .444 and sig. value of .000, (AWR) awareness (β = .024; p=.000), (ENF) enforcement (β = 5.214; p=.002) and (ENG) engineering (β =.244; p=.000) all these independent variables shows impact on traffic rules violation significantly. The statistical tests applied in case, all these independent variables suggest there is strong relationship between independent variables and dependent variable traffic rules violation.

Correlation Analysis

Correlation		TRV	EDU	AWR	ENF
EDU	Pearson Correlation	.852[**]	-	-	-
AWR	Pearson Correlation	.588[**]	.288[**]	-	-
ENF	Pearson Correlation	.775[**]	.170[**]	.324[**]	-
ENG	Pearson Correlation	.224[**]	.128[**]	.366[**]	.623[**]

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis shows that the variable has correlation significant at 0.01 levels with each other's. The results of correlation and regression analysis support all hypotheses.

The results show that the independent variables have strongly correlated with each other and also with dependent variables. The findings also explore that independent variable education strongly impact on the dependent variable traffic rules violation in Pakistan while enforcement, awareness and engineering are impacting respectively less than education.

Conclusion and recommendation

This research proves that law enforcement is the key element in controlling traffic violation. But at the same time, traffic safety education plays an essential role in the enhancement of traffic safety measure. Enforcement has influence on driver behavior through the role of driver attitudes towards legislation whereas education is more likely an influence on long-term attitude towards rules. Traffic and road safety condition in Pakistan, is an issue in which very few organization and people are willing to do fruitful action for the future advancement. The finding shows that the traffic rules violation will be mitigated through effective education, awareness, law

enforcement and engineering / infrastructures of roads in Pakistan. So our entire hypothesis proved true on the basis of results. The problem of traffic rules violation in the past has not received the kind of attention deserved. The majority of the efforts in this regards were not only inadequate, but they were also misdirected. No proper framework was created to cope with the problem on a systematic basis. Also the methods used were old, unusual and short sighted. It seems that the problem of traffic safety on our roads and highways has already reached crises proportions. Any further delay in initiating the programs based on modern scientific principles will have disastrous consequences. The time is running out rapidly. It is therefor, proposed that prompt measures should be taken to avert the danger before it gets out of hand. The proposed measures if adopted can help organize the traffic in this country on scientific basis and keep alleviate the problem of safety on our streets and highway at a very little cost. Research exemplify that there are many obstacle due to which safety is not put into practice. In this incongruous condition, education and enforcement both are important stages. Experts, professionals and foreigners should play important roles in the effective training sessions. In conclusion, government should also provide adequate safety policies and train people.

On the base of our findings following recommendation are proposed in this regards, Driver's education in this country is one of the most neglected fields. No systematic program me for driver education exists today. As yet there is no realization of the fact that in order to cope with today's complex traffic problems, a driver has to have much more than simple ability to drive a vehicle. Majority of the drivers are unawareness of the traffic safety laws and regulations. Similarly a lot of traffic rules are violated daily by a large number of road users un-knowingly and by misinterpretation of the rules. The most effective way of driver's education is to teach high school students various safety measures and inculcate in them the spirit to faithfully follow those rules. This method has proved to be a most valuable tool in the hands of transportation safety planners and traffic engineers. Management should ensure that all drivers are continuously trained and reminded of the importance of safe driving. Such training should not be haphazard, but should be a well-planned and implemented formal training program me.

Also proper equipped driving schools should be opened all over the country and every future professional driver should be required to undergo training from one of these driving schools as a pre- requisite for issuing a driving license.

Road safety should be the part of curriculum at different levels of Education. The government should establish the public traffic safety rules awareness programs. The most useful medium today for awareness programs are print media (Urdu, English newspapers) and also electronic media (e.g T.V, Radio, Cables, Internet etc). They can play their roles by presenting traffic safety slogans and documentaries.

Disadvantages suffered by the traffic constable are that he is not properly equipped to do the job. In majority of the cased he is immobile and cannot peruse and apprehend the offender who decides not to stop. Traffic duties should be entrusted to only these foot constables that have desired qualification and have full awareness of the traffic safety rules. The authorities of challan should be restored for foot constables regarding traffic rules violations. Traffic constable on roving duty should be provided with a motor cycle for speedy and prompt apprehension of the traffic offenders. Computerized and strict Enforcement action should be applied or it could be linked appropriately with NADRA database. New and updated Engineering standards should be designed prevalent the nature and traffic conditions of Pakistan.

References
1. Alemika E. and Chukwuma I., (2000) Police-Community Violence in Nigeria, Lagos: Centre for Law Enforcement Education.
2. Alemika E. E. O., (1999) Police-Community Relations in Nigeria: What Went Wrong?" Policing a Democracy, Lagos: Centre for Law Enforcement Education.
3. Appadurai, A. (Ed.). (1986). The Social Life of Things: Commodities in Cultural Perspectives. Cambridge University Press, Cambridge
4. Bandura, A.,(1977). Social Learning Theory. Prentice Hall, Englewood Cliffs, NJ
5. Campbell, B. J. (1958). Driver improvement-the point system. Institute of Government, University of North Carolina, Chapel Hill.
6. Castellà, J., Pérez, J., (2004) Sensitivity to punishment and sensitivity to reward and traffic violations. Accid. Anal. Prev. 36 (6), 947–952.
7. Evans, L., (1996). Safety belt effectiveness: the influence of crash severity and selective recruitment. Accident Analysis and Prevention 28(4): 423–433.
8. Goldstein, L. G. (1972). Youthful drivers as a special safety problem. Accident Analysis and Prevention, 4, 153–189
9. http://morth.nic.in/showfile.asp?lid=83
10. http:// www.worldlifeexpectancy.com
11. Jacobs, G. et al. (2000) Estimating Global Road Fatalities: TRL Report 445. London. Transport Report

Laboratory.

12. Jacobs, J. D. Aeron Thomas, A (1999) A Review of Global Road Accident Fatalities.

13. Levonian, E. (1969). Personality characteristics of juvenile driving violators. Accident Analysis and Prevention, 1, 9–16.

14. M.Saqib, K. Sheeraz, and M. Farooqui, (2010) "Development of guidelines for road safety audit in Pakistan Case studies," Proceeding of the 3rd International Symposium on Infrastructure Engineering in Developing Countries , Karachi, Pakistan, pp. 141-151.

15. Macdonald, S., Mann, R.E., Chipman, M., Anglin-Bodrug, K., (2004) Collisions and traffic violations of alcohol, cannabis and cocaine abuse clients before and after treatment. Accid. Anal. Prev. 36 (5), 795–800.

16. Mohan .D, and Tiwari .G, (1998) "Road safety in low Income countries: Issues and concern regarding technology transfer from high-income countries," Reflections on the Transfer of Traffic Safety Knowledge to Motorizing Nations, Global Traffic Safety Trust, Vermont South, Australia, pp. 27–56.

17. Parker, D., Manstead, A. S. R., & Stradling, S. G. (1995). Extending the theory of planed behaviour: the role of personal norm. *British Journal of Social Psychology*, 34, 127–137.

18. Parker, D., Manstead, A. S. R., Stradling, S. G., Reason, J. T., & Baxter, J. S. (1992). Intention to commit driving violations: an application of the theory of planned behavior. *Journal of Applied Psychology,* 77(1), 94–101

19. Parker, D., Reason, J., Manstead, A., & Stradling, S. (1995). Driving errors, driving violations and accident involvement. Ergonomics, 38(5), 1036–1048.

20. Radelet, L.A. and Carter, D.L., (1994) The Police and the Community, Macmillan College Publishing Company, New York, NY.

21. Renner, W., Anderle, F.G., (2000) Venturesomeness and extraversion as correlates of juvenile drivers"traffic violations. Accid. Anal. Prev. 32 (5), 673–678.

22. Rosenbloom, T., & Wolf, Y. (2002). Signal detection in conditions of everyday life traffic dilemmas. Accident Analysis and Prevention, 34, 763−772.

23. Rothengatter, J. A., & Manstead, A. S. R. (1997). The role of subjective norm in predicting the intention to commit traffic violations. In J. A. Rothengatter, & E. Carbonell Vaya (Eds.), Traffic and transport psychology (pp. 389–394). Oxford: Pergamon.

24. Sterman, J.D., (2000). Business Dynamics: Systems Thinking and Modeling for a Complex World McGraw Hill, ISBN 0-07-231135-5.

25. Streff, F. M. (1991). Crash avoidance: new opportunities for behavioural analysis. Journal of Applied Behaviour Analysis, 24, 77–79

26. WHO (2004). World Report on Road Traffic Injury Prevention. Geneva

27. Wilson, J. Q. (1968) Varieties of Police Behavior. Cambridge, MA: Harvard Univ. Press.

28. Yamamoto, T., Hashiji, J., Shankar, V.N,(2008) Underreporting in traffic accident data, bias in parameters and the structure of injury severity models. Accid. Anal. Prev. 40 (4), 1320–1329

29. ZRP (2000) RTA Statistics. Harare