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Effect of Characteristics of Driver Behavior on Traffic Safety

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Abstract: This paper helps us to identify the mistakes and driving behavior that is made by drivers while driving. Road traffic safety issues were designed on young driver behavior by using driver behavior questionnaire. The main causes of traffic accidents, injuries, and fatalities that are related to driver behavior it has a direct relationship between driver behavior and accident ratio. Preventive measures were recommended to improve traffic safety and to minimize accident. And the relationship between driver's personality, age, and psychological factors while driving.

Keywords: Driver behavior, traffic safety, driver behavior questionnaire (DBQ), statically analysis, traffic accident, driver mistakes.

I. INTRODUCTION

Today, with the economic growth of every country, the numbers of vehicles increase every year. There are many factors involve in traffic accidents. In traffic safety, the special concern of researchers are causes of accidents. The aim of the research is to a reduction of accident frequencies and severity and also the prevention of accidents. When the driver is driving his car what the other thinks he doing.

The behavior of the driver is adopted as a negative or positive issue. Most of the literature referred to describing the behavior level of the driver and the driving skills. This study on some of the most important driver attitude and their personality which get affects the driving environment. The driving environment acquires different logics of driving. There is using a different method to found the main causes of crashes.

The driver's characteristic features and errors are developing relevant curative actions. Some of the driver behavior analysis models will give us by developing the model which called prediction model about the driving pattern and styles driving information whether it is safe or not. The view of levels of increasing motorization in developing countries has become a priority issue for driving safety. The greater focused on the traffic safety of driver behavior

II. PAPER REVIEWED

A. Age and Gender

Age and Gender are the most common reason for the behavior of the driver behind the accident. The number of people injured in vehicle crashes they usually made in term of age and gender. Viktorija Perepjolkin(2011) was research on Drivers age, gender, and aggressiveness as predictors of aggressive driving behavior in this male are more outnumber of a margin than female in the involvement of traffic. Speeding is much and alcohol driving also in male than female. It was shown that the more common factor of drivers aggressive driving and violation in men. Driver violence is higher of male than female but the driver aggression did not emerge the gender differences.

The gender older drivers are less aggressive risk-oriented than the young driver. Young drivers are driving risky and uncertain high-speed limits. The highest risk group is drivers aged 18 to 24, especially men under 20.

Richard Amoh-Gyimah (2013) was research on the gender and age dimension. In this age is considering 20-45 years. This age group driver was developing higher risks for the crashes of the vehicle on the surface of the dry road at night. It is observed that the highest intensity of single-vehicle crashes ages 40 years.

On the basis of gender, the male driver is taken smaller gape as compare to the female driver's that suggests older drivers and female drivers are driving more safely.

Kelly pivik(2010) was research on the difference between age and gender in high-risk driving. The more perception of the positive effect of a male driver and teen drivers while driving affects the risky driving as compared to female drivers and adult drivers. That positive perception risk it connects the age and gender effects. This affects the more risky driving for teenage drivers as compared to adult drivers. This also affects the more risky driving as compared to female drivers.

B. Aggressive Behavior

Aggressive behavior means that the reacted behavior of physically, emotionally and psychologically. According to this behavior, affects the driving skills of the driver and causes the crashes. Viktorija Perepjolkin(2011) was research on Drivers age, gender, driving experience and aggressiveness as predictors of aggressive driving behavior in this it considering the behaviors which represent the aggressive driving it including: improper lane changes, passing on the road shoulder, tailgating, improper passing, weaving in and out of the traffic, preventing other drivers from passing, failure to yield the right of way to other road users, running red lights, running stop signs, unwillingness, yelling, driving at speeds far in excess of the norm and change lanes due to traffic conditions.

Mamidi Kiran Kumar(2015) was research on Driver Behavior Analysis and Prediction Models on the basis of analysis the action layout of driver behavior. It would use the different aim to the different model developed. The safety of people will develop to assure and driving regulation should be acceptance. It uses the method of behavior analysis which based on the vehicle onboard diagnostic information and Ada Boost algorithms and it collects the data of vehicle operation information, including vehicle speed, throttle position, and calculated engine load.

Danish Farooq(2018) was research on Analysis of Young Driver Behavior Related to road safety issues in this designed on the young driver behavior questionnaire (DBQ) study which relates the traffic safety issue. 11 items are consists of this set of questionnaire to the young driver for analyzing the driving skill and driver behavior. In this ANOVA statistics are used, it measures the self-reported frequency of drivers involving in perceived risk of driving.

C. Driver Psychology

Driver's psychology means to the study of the driver's personality its maturation and learning of driver. Personality is the individual reflection of the driver's behavior. Bogdan Danciu(2012) was research on Psychological risk factors for road safety it shows the effect of driver psychologically thinking as an individual at the time of driving. Driver belongs to the characteristics of risky personality. Careful drivers, worried and risky driving behavior those three subtypes are described the junior driver's psychology. Use the relationship between the macho role and nonmacho role of the personality of the driver group. For better understanding the psychological behavior of driver uses some personality questionnaire of vehicle crashes.

Mohammed Najeeb(2009) research on a study of the psychological factors in this a questionnaire measuring the various dimensions in psychological factors. Use the questionnaire about sensation seeking, the tendency to aggression driver psychology. It would collect the data of 500 drivers about their age, experience and education level. By using ANOVA it came to knowing the frequency variance of the data and finding the variance. It would be identifying the driver aggression, hostility, external control towards the violation of behavior of traffic rules.

III. CONCLUSION

The aim of this review is the aggressiveness as personality importance. It shows the phenomenon of the driver in a traffic violation and risky driver behaviors. The behavior of driver according to the age and gender their effect of the characteristic of the driver in major causes of crashes. The relation of age and gender there is a difference of experience, information and driving skill. The personality of the driver it all depends on their psychological effect. It could be better to understand the role of a risk factor on road safety issues.

REFERENCES

- [1] Viktorija Perepjolkina (2011); "Driver's age, gender, driving experience, and aggressiveness as predictors of aggressive driving behavior". *Signum Temporis* Volume 4, Number 1, 2011 DOI: 10.2478/v10195-011-0045-2
- [2] Richard Amoh-Gyimah (2013); "Driver attitude towards traffic safety violations and risk-taking behavior". *International Journal for Traffic and Transport Engineering*, 2013, 3(4): 479 - 494
- [3] Kelly pivot (2010); "Age and gender differences in risky driving".
- [4] Mamidi Kiran Kumar (2015); "Driver Behavior Analysis and Prediction Models". (IJCSIT) *International Journal of Computer Science and Information Technologies*, Vol. 6 (4) , 2015, 3328-3333
- [5] Danish Farooq (2018); "Analysis of Young Driver Behaviour Related to road safety issues". *International Journal of Civil Infrastructure (IJCI)* Volume 1, Year 2018
- [6] Bogdan Danciu (2012); "Psychological risk factors for road safety".
- [7] Mohammed Najeeb (2009); "A Study of the Psychological Factors that Influence the rule Violation Behaviour of Drivers".
- [8] Chakrabarty Neelima (2015); "Assessment of driving behavior and skills of heavy vehicles drivers in India".
- [9] Adrian B Ellison (2010); "Driver characteristics and speeding behavior".
- [10] Alberto Buchhi (2012); "Traffic psychology & Driver behavior". *Social and Behavioral Sciences* 53 (2012) 973 – 980



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