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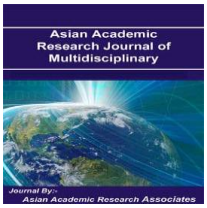

INVESTIGATION INTO FACTORS ASSOCIATED WITH DRIVERS CHOICES OF SPEED (THE USE OF REGRESSION ANALYSIS APPROACH)

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Abstract

The speed at which drivers choose to drive is a major component of their behaviour and some other factors on the road, and one that plays a major role in the frequency and severity of accident. In-depth accident studies in some path of the globe have identified inappropriate speed choice is being one of the factors most frequently contributing to cases of accidents while recent study of traffic enforcement reports in Nigeria has shown that speed is a factor in up to a third of all accidents. However, the factor that influence the speed adopted by individual drivers are not well understood, and there is a need for such information in order to develop more effective ways to modify driver choice of speed. This paper is focused on identifying those characteristics of a driver that are most influential in determining his or her choice of speed, and to explore the links between these characteristics, the speeds chosen, and the dangers in which the drivers are involved. The study used a combination of on-road observation, survey technique and regression technique. The first stage consisted of taking unobtrusive speed measurements of a sample of tree-flow vehicles on a variety of roads, and at the same time recording the vehicle registration number on video. Nine sites were surveyed on a variety of roads. The second stage involved identifying the owners of selected vehicle through the Driver and Vehicle Licensing Agency. Regression techniques was used to analyze the data where the driver is a dependent variable Y which is dependent on two or more independent variables $ax_1 + ax_2$. The value of the result from estimated multiple regression equation, which is 59.12, shows that human/environmental factors as well engine capacity and road geometry factors, are associated with the drivers choice of speed. From the result it means that about 59.12 = 60% of the accidents in the area of this research are caused by these factors.

Key words: Drivers speed, accident, sampling, regression analysis

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