

The Analysis of Increment of Road Traffic Accidents in Libya: Case Study City of Tripoli

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Abstract : Safety is an important consideration in the design and operation of streets and highways. Traffic and highway engineers working with law enforcement officials are constantly seeking for better methods to ensure safety for motorists and pedestrians. Also, a highway safety improvement process involves planning, implementation, and evaluation. The planning process requires that engineers collect and maintain traffic safety data, identify the hazards location, conduct studies and establish project priorities. Unfortunately, in Libya, the increase in demand for private transportation in recent years, due to poor or lack of public transportation led to some traffic problems especially in the capital (Tripoli). Also, the growth of private transportation has significant influences on the society regarding road traffic accidents (RTAs). This study investigates the most critical factors affect RTAs in Tripoli the capital city of Libya. Four main classifications were chosen to build the questionnaire, namely; human factors, road factors, vehicle factors and environmental factors. Moreover, a quantitative method was used to collect the data from the field, the targeted sample size 400 respondents include; drivers, pedestrian and passengers and relative importance index (RII) were used to rank the factors of one group and between all groups. The results show that the human factors have the most significant impacts compared with other factors. Also, 84% of respondents considered the over speeding as the most significant factor cusses of RTAs while 81% considered the disobedience to driving regulations as the second most influential factor in human factors. Also, the results showed that poor brakes or brake failure factor a great impact on the RTAs among the vehicle factors with nearly 74%, while 79% categorized poor or no street lighting factor as one of the most effective factors on RTAs in road factors and third effecting factor concerning all factors. The environmental factors have the slight influences compared with other factors.

Keywords : road traffic accidents, Libya, vehicle factors, human factors, relative importance index

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