

Time-local analysis and reasons of urban accidents occurring at Ardebil city

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Extended Abstract

Objective: Increasing vehicles and communication path users is main and extensive subject, which it contains various and complex dimensions. Transportation can provide economical inflorescence bed and accidents cause to damage for person and society. Iran isn't exception from this rule, rather it has one the highest driving accidents in the world. Mortality rate in Iran is nearly 2 times more than European countries. In this case, Ardebil city is one of forehand cases about inter-city accidents. For example, 64% of inter-city accidents mortal relate to passengers unfortunately. In comparison with this case, we can say country total statistics is equal with 22% and Tehran has 43% of passenger's mortal accidents and this subject has contemplation. Current study wants to discover Ardebil inter-city accidents reasons by using statistical and spatial analysis to provide basic affairs implementation and presenting guidelines for accidents reducing.

Methods: Current study is applied according to aim and also it is analytical–descriptive according to nature. Requirement data and information were gathered by documentary and field methods. Documentary date in current study include driving accidents statistics during 2014-2016 solar years, which they were happened in Ardebil city legal range and field data were gathered through experts and driver's questionnaire. Case study region is Ardebil city range and statistical society relate to occurred accidents during 2014-2016 solar years in mentioned range. This statistic was registered by Ardebil road Police. Another statistical society in current study is Ardebil urban drivers, that it was completed by Snowball method from 100 persons. In order to data analysis; Chi Square and Friedman's statistical tests were used in SPSS software framework and also Arc GIS software was used to accidents spatial dispersion plans and finally structural analysis model in MICMAC Software framework was applied to recognition effective and key factors for accidents occurring at Ardebil city.

Results: Results showed that, the highest amount of accidents occurring in Ardebil city relate to summer according to time and also according to placement, the highest amount of occurred accidents were distributed in highways, main and side way streets. One-third of urban accidents in Ardebil city relate to property damage and two-third of accidents relate to battery damage respectively. We can say, nearly 50% of Ardebil urban accidents relate to lack of attention to forward; 20% relate to lack of respect priority right and remained factors relate to low percent of Ardebil urban accidents reasons. Finally, structural model output showed that; human factors such as hurry, scurry, lack of respect to priority and longitudinal and traverse or lateral distance are main reasons in occurring Ardebil urban accidents.

Conclusion: Conclusion showed that changing survey of battery damage to property damage. Now, two-third of accidents are battery and one-third are property. Nearly 50% of occurred accidents relate to lack of attention to forward and 20% relate to lack of respect priority right. The other result in current study relate

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to human factors which they have very effective role in Ardebil city urban accidents occurring. The most important human factors are hurry, scurry, lack of respect to priority and longitudinal and traverse or lateral distance, which they have the highest effectiveness and influence on another factors. At last we can conclude that; different human, environmental, management factors, way and vehicles are effected on urban accidents occurring and these factors have different effectiveness degree according to importance, placement and time conditions. Mentioned factors in current study were important with different effectiveness and influence amount in urban accidents occurring at Ardebil city. In occurring of accidents, set of factors have main role and between them, human factors role are deterministic, so we must be prioritizing training principles in reduction and preventive plans; because in accidents occurring with street, vehicle and environmental conditions; human or driver has significant role.

Keywords: Accidents time and location, Accidents reasons, Structural analysis model, Ardabil City.

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