

Use factor analysis to study the factors affecting traffic accidents For the year 2018 in Iraq

L. Wafaa Abdul Samad Ashour

L. Mona Taher Ghafel

**Department of Statistics - College of Management and Economics Department of
Statistics - College of Administration and Economics**

Summary

This research includes the application of one of the multivariate statistical methods is the factor analysis method that analyzes a set of correlation coefficients between several variables and reduces the variables under discussion to a smaller number resulting in new variables called factors' that is, it helps to understand the structure of the correlation matrix or common variation through Fewer factors.

Data were obtained from the annual statistical report issued by the Central Statistical Authority for the year (2019) and the research included (15) governorates and (16) variables representing the type of road, the time of the accident, and the type of accident. The research came out with a set of results, the most important of which are reducing the variables to three basic factors by Variation (85.82) of total variance.

Keywords: Global Analysis, ' Components Method,' Contributions of Variables.

The first topic: research methodology

1 -Introduction

The technological progress that prevails in all material, economic and cultural fields has provided people with many reasons for well-being. However, many of them did not make good use of these blessings, so they employed them negatively and threatened their lives and security. Traffic accidents are at the forefront of these negatives as a result of the resulting material and social damages and the harvest of the lives of many people. The danger of traffic accidents lies in the many effects that it has on the individual and society, including economic, social and psychological.

2 -Research problem

The increase in the number of traffic accidents in Iraq "and the resulting negative impacts are among the most important problems that are added to other problems, such as diseases and