World Academy of Science, Engineering and Technology
International Journal of Industrial and Manufacturing Engineering
Vol:8, No:06, 2014

Decision Tree Modeling in Emergency Logistics Planning

Authors : Yousef Abu Nahleh, Arun Kumar, Fugen Daver, Reham Al-Hindawi

Abstract : Despite the availability of natural disaster related time series data for last 110 years, there is no forecasting tool available to humanitarian relief organizations to determine forecasts for emergency logistics planning. This study develops a forecasting tool based on identifying probability of disaster for each country in the world by using decision tree modeling. Further, the determination of aggregate forecasts leads to efficient pre-disaster planning. Based on the research findings, the relief agencies can optimize the various resources allocation in emergency logistics planning.

Keywords : decision tree modeling, forecasting, humanitarian relief, emergency supply chain
Conference Title : ICIMSE 2014 : International Conference on Industrial and Manufacturing Systems Engineering
Conference Location : Istanbul, Türkiye
Conference Dates : June 19-20, 2014