Introduction for Volume 7, Issue 1

A modern society is full of competitions. To reduce existent costs, the ultimate goal of risk analysis and crisis response, is an important means to enhance competitiveness. In this issue of the Journal of Risk Analysis and Crisis Response (JRACR), Volume 7, Issue 1 (2017), such efforts are embodied in the included papers.

This issue contains 6 papers. There are 5 contributions written in English and 1 contribution in Chinese with English abstracts. The papers can be divided into five topics: risk decisions in the marine environment, financial risk, disaster economics, risk analysis related to chemical engineering and equipment, and rural tourism safety.

The paper on risk decisions in marine environment entitled "Multicriteria Decision Aid Applications to Support Risk Decisions in the Marine Environment: Locating Suitable Transshipment Areas" by Stavrou and Ventikos, aims to develop an MCDA model to support decision makers in marine environments. The UTASTAR method is employed for the selection of the best area for ship-to-ship transfer of cargo. This method relies on the hypothesis that both the actions and the corresponding criteria interact with each other over time, constructing and formulizing the decision aid model. The use of real data for the tuning of the model parameters may lead to the optimal compatibility between model and decision-maker cognition.

There are two papers on financial risk. The first one "Research on Initial Trust Model of Mobile Banking Users" by Sun, et. al. studies the key factors that affect the trust mechanism of mobile banking, such as structure assurance, ubiquity, information quality, initial trust, perceived ease of use and experience. The results show that structure assurance is an important factor influencing trust tendencies, and ubiquity, information quality, perceived satisfaction and perceived ease of use are the key factors that affect initial trust and experience. The initial trust directly affects users' sense of experience of mobile banking and decides the tendency of trust, which affects the actual use. Therefore, mobile phone banks need to pay more attention to the initial sense of trust and experience to promote user acceptance and trust mobile banking services. The second paper "Review of Research on Credit Risk Management for Rural Credit Cooperatives" by Song, Li, Xiao, is an examination and summary of the research on credit risk management for rural credit cooperatives. The main content of this paper contains four aspects of credit risk: classification and characteristics, problems and factors, model and evaluation, and countermeasures and suggestions for rural credit cooperatives.

The paper on disaster economics, entitled "A Critical Review on the Economics of Disasters" by Yu and Tang, presents a research framework of the economics of disasters, including disaster damage assessment, mitigation theory, disaster short-term economic impact, relationship between disasters and long-term economic growth, the value of life assessment, disaster risk management, and disaster recovery and reconstruction theory.

There is one paper on risk analysis related to chemical engineering and equipment. The paper "Optimization of Ventilation and Alarm Setting During the Process of Ammonia Leak in Refrigeration Machinery Room Based on Numerical Simulation" by Liu, et al, discussed the velocity and concentration field distribution of an ammonia leak through simulation of a refrigeration machinery room using Fluent software. The ventilation system of the room is optimized in three aspects, which are air distribution, ventilation volume and discharge outlet. The influence of the ammonia alarm system through ventilation is also analyzed. The results show that it is better to set the discharge outlet at the top of the plant than at the side of the wall, and the smaller the distance between the air outlet and the ammonia gathering area, the better the ventilation will be. Air flow can be improved and the vortex flow can be reduced if the ventilation volume, the number of air vents and the exhaust velocity are reasonably arranged. Not only does this ensure a functioning alarm system, but also the scope of the detection area could be enlarged if the detectors are set on the ceiling of the refrigeration units or the ammonia storage vessel.

The last paper focuses on rural tourism safety. “Research on Mechanism of Risk Coupling for Rural Tourism Safety” by Luo, presents an analysis model of risk coupling for rural tourism safety accidents. First, based on regional environmental risk system theory, the rural tourism safety system is analyzed. Second, under the four dimensions of man, machine, environment, and management, the diamond model is established for rural tourism safety risk. Then, based on the connotation of coupling, the author provides a definition and description of the types of risk coupling in rural tourism safety accidents. Finally, based on the periphery theory and trigger working principle, a risk coupling mechanism model of rural tourism safety was established according to the “ rural tourism risk trigger”. The results provide countermeasures and suggestions for rural tourism safety and risk management.

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