

## Journal of Risk Analysis and Crisis Response Vol. **9(3)**; October (2019), *p.* 155 DOI: https://doi.org/10.2991/jracr.k.191024.007; ISSN 2210-8491; eISSN 2210-8505 https://www.atlantis-press.com/journals/jracr



## Correspondence

## INTRODUCTION

This issue contains six papers. There are six contributions in English. The papers can be divided into six topics: risk assessment related to ecological environment, risk assessment related to new technology, political risk assessment, financial risk analysis, emergency response and methods on risk analysis.

There is one paper in political risk assessment. The paper "Re-examining Political Risk Assessments in Volatile Regions" by Ghaidaa Hetou, re-examines political risk analysis and explains how understanding the topology and nature of political risk in emerging and developing markets is a crucial advancement in developing political risk analysis for the private sector and government agencies. Particular focus is given to developing political risk characterization as a risk analysis category. To bridge the conceptual gap between risk assessment and risk management, this paper proposes the concept of complex adaptive systems as the backdrop for emerging political risk scenarios.

There is one paper in methods on risk analysis. The paper "A Critique of Pandemic Catastrophe Modeling" by Daniel J. Rozell, discusses some general limitations of catastrophe modeling in the context of pandemics—such as the failure to distinguish natural variability from incertitude and the difficulty of ensuring a representative model—along with recommendations for minimizing surprises.

There is one paper in emergency response. The paper "A Game Theory Approach for Multi-agent System Resources Allocation against Outside Threats" by Cheng-Kuang Wu et al., proposes an integrated model for the deployment of multiagent resources for resisting outside threats. The proposed two-stage model applies the divide-and-conquer strategy to solve the resources allocation problem. First, the interactive actions between an external attack and a response agent are modeled as a non-cooperative game, after which the external threat value is derived from the Nash equilibrium. Second, the threat values of all response agents are utilized to compute each agent's Shapley value. Then, an acceptable resource allocation of agents based on their expected marginal contribution creates a minimum set of resource deployment costs. The experimental results show that our approach is feasible as a means to mobilize search and rescue resources from a non-affected district and to improve relief efforts against earthquake damage. The Shapley value allocation approach proposed in this study; the percentage of resources allocation of districts is closer to death rate of each district than the proportional division of resources.

There is one paper in risk assessment related to new technology. The paper "Evaluation on Technology Innovation Efficiency of Big Data Enterprises Based on DEA" by Xinpu Wang et al., uses

DEA-BCC model to evaluate the technological innovation efficiency of 21 big data enterprises. It is found that the technological innovation efficiency of big data enterprises is better. The average values of technological efficiency, pure technological efficiency and scale efficiency are 0.587, 0.772, and 0.750, respectively. The technological efficiency of big data enterprises is lower, and the individual differences are larger. At the same time, the research shows that there are 15 big data enterprises need to further expand the scale, and then improve production efficiency.

There is one paper in risk assessment related to ecological environment. The paper "Dynamic Comprehensive Evaluation of Ecological Environment of 12 Provinces and Cities in Western China" by Hongmei Zhang et al., selects data from 12 provinces and cities in the western part of China for 6 years, adopts multiple evaluation methods to conduct a dynamic comprehensive assessment of the western ecological environment, and provides some corresponding countermeasures for the coordinated development of the environment and economy in the western ecologically fragile region.

There is one paper in risk assessment related to ecological environment. The paper "Exploration of risk oriented Fund Performance Audit—Take rural endowment insurance as an example" by Ronggang Zhang et al., analyzes the current situation and causes of the performance audit of rural pension fund based on the cost-benefit principle and the public fiduciary economic responsibility theory and finds that the audit demand degree is not enough. This paper proposes to integrate risk orientation into performance audit and adopt different audit methods and evaluation systems to improve audit efficiency and reduce costs by dividing risk levels and optimizing performance audit.

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