New Perspective in Supply Chain Resilience Analytics: Balancing the Business, Environmental and Societal Impact of Disruptions

Globalization and the drive for cost efficiency have significantly increased the vulnerability of interconnected supply chains. In the current dynamic and unpredictable socio-political, economic, and environmental landscape, organizations of all sizes—including small and medium-sized enterprises (SMEs)—are faced with unprecedented challenges in maintaining resilient supply chains. Enterprises often overlook the environmental and societal consequences of their mitigation strategies, focusing primarily on minimizing business losses. Additionally, these organizations encounter significant barriers in accessing the necessary hardware, software, and analytical expertise to implement effective resilience solutions. However, the expanding availability of advanced, yet affordable, technologies such as cloud-based open-source optimization, simulation, and artificial intelligence (AI) tools now enables organizations of any scale to adopt sophisticated risk management strategies.

This special session seeks to explore the design and application of accessible analytical tools aimed at improving supply chain resilience across diverse organizational contexts. By integrating theoretical insights with practical case studies, this session will demonstrate how organizations can use AI, data analytics, and risk management techniques not only to overcome supply chain disruptions but also to build more adaptive, sustainable, and socially responsible business practices.

Topics of Interest:

We invite submissions from researchers, practitioners, and industry experts that address, but are not limited to, the following areas:

- **Resilience in SME Supply Chains**: Examining the unique challenges faced by SMEs in managing supply chain disruptions and identifying strategies for ensuring business continuity.
- **Risk Analytics and Quantitative Approaches**: Using open-source data platforms and analytic tools to assess and mitigate risks in supply chains.
- **Balancing Business, Environmental, and Societal Impacts:** Developing frameworks that combine business goals with environmental sustainability and social responsibility to enhance supply chain resilience.

This session aims to generate meaningful dialogue on the future of supply chain resilience analytics, with a focus on creating practical, scalable, and ethically responsible solutions for organizations across various industries.