

Call for papers
Special Issue
E & M Economics and Management

Emerging digital technologies and their influence on elimination of supply chain vulnerability

This special issue aims to systematize and expand knowledge about the possibilities and barriers of using digital technologies to eliminate the vulnerability of supply chains. A specific focus of this special issue is about the use of emerging digital technologies and technical solutions in enhancing lean, agile, resilient and green aspects of supply chains.

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Background and objectives

The environment in which organizations operate has undergone dramatic changes in recent years. Many of them are still feeling the effects of the pandemic, not to mention other concurrent events and phenomena - such as war in Ukraine, international sanctions, related problems in supply chains, energy crises, climate change, etc. As organizations are part of a complex system of relationships and connections, they are directly affected by such disruptive, unpredictable events (Paul and Chowdhury, 2021). Disruptive events can bring a range of direct and indirect negative impacts, which are most visible from a business perspective in the form of disruptions in supply chains (disrupted deliveries, time slips, capacity limitations, etc.) (Spieske and Birkel, 2021). The unpredictable events of recent years have fully exposed the vulnerability of national and international supply chains. The scientific community and practice responded to this new phenomenon by intensively searching for ways and possibilities to reduce supply chains' vulnerability and restore their performance as quickly as possible after disruptive events (Queiroz et al., 2019; Ye et al., 2022; Dubey et al., 2022; Alvarenga et al., 2023). One of the ways that current knowledge opens is through the use of digital technologies to reduce the vulnerability of supply chains (Sharma et al, 2021; Ahmed et al., 2023).

The research focused on using digital technologies to reduce supply chain vulnerability is very dynamic. The pandemic has triggered strong scientific interest in this research area (Ivanov, 2022). Research focuses not only on the use of new technologies (e.g. digital twins, robotic process automation, blockchain, IoT, artificial intelligence ...) (Oztemel and Gursev, 2020), but the trend is also to identify and quantify the impacts on various aspects of supply chain performance (Kamble et al., 2022; Ghobakhloo, 2020; Ivanov, 2023).

Aim of the Special Issue and Topics

The aim of this Special Issue is to investigate the impact of new technologies and their dynamics on the elimination of vulnerability in supply chains. This objective reflects the current scientific direction in the field of supply chain research and can be developed in following areas:

- The role of new technologies in supply chain vulnerability elimination.
- The potential of emerging technologies in supply chain management.
- The impact of data-driven digital transformation in supply chains.
- Current and future barriers in the planning and deploying of new technologies in supply chains.
- Disruption risks and resilience of supply chains.
- Digital technologies and building lean supply chains.
- Challenges and best-practices in digital transformation projects in supply chain management.
- The application of Industry 4.0 technologies as source of supply chain effectiveness.
- The implications for digital transformation initiatives in supply chains.
- Creation empirical-based conceptual models of supply chains vulnerability.

These topics are indicated, and they are not exhaustive. Instead, they are intended to stimulate thinking about the role of emerging digital technologies in building lean, agile, resilient and green supply chains. We welcome submissions that address topics pertaining to aspects of supply chain vulnerability and the role of digital technologies.

Important dates

Submission open date: 1. 5. 2023

Manuscript submission deadline: 31. 10. 2023

Articles are accepted through the submission system: <https://rizeni.ekonomie-management.cz/en/cms/review-process>

After uploading the article, please send us information that it is a text for the special issue to the following e-mail: journal@tul.cz.

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