

Critical Materials Assessment: A Key Factor for Supply Chain Risk Management

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To ensure the continuity of their activities, companies implement supply chain risk management (SCRM) approaches to reduce their vulnerability towards risks and secure their supply chain. However, implementing SCRM approaches and the effectiveness of risk mitigation depends greatly on the types of risks considered. In this paper, we focus on a specific source of risk linked to critical materials, i.e., the availability and accessibility of raw materials in relation to geopolitical, economic, environmental and/or technical contexts. Critical materials are a significant source of vulnerability for supply chains, and their identification via criticality assessment methodologies is a topic of growing concern. Based on a literature review, we elaborate a conceptual model integrating material criticality assessment into SCRM. This model can be considered as the first step in building a global framework positioning critical materials as a key factor for supply chain risk management.

KEYWORDS:

[Raw materials](#)[criticality](#)[supply chain risk management](#)[resilience](#)