

Mapping the Landscape of Supply Chain Decentralisation in a Turbulent World: A Systematic Literature Review

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Abstract

In recent years, the world has witnessed unprecedented disruptions triggered by a wide range of phenomena, including natural disasters, pandemics, financial crises, geopolitical tensions, and armed conflicts. These events, whether frequent or rare, short-lived or prolonged, have generated impacts that vary from localized operational setbacks to severe, systemic breakdowns affecting entire industries and global markets. Such turbulence has exposed the structural fragility of traditional centralized supply chains, revealing their limited capacity to absorb shocks and maintain continuity under extreme uncertainty. Against this backdrop, this study investigates the key drivers of supply chain decentralization as a strategic response to large-scale disruptions, with particular attention to the COVID-19 pandemic, geopolitical conflicts, and climate-related disasters. A systematic literature review (SLR) was conducted to analyze peer-reviewed academic research, enabling the identification of dominant themes, emerging patterns, and strategic priorities within the decentralization discourse. The findings highlight resilience and organizational capability as critical protective mechanisms against global shocks. Simultaneously, technology-enabled innovation, such as advanced analytics, automation, and real-time visibility systems, emerges as a powerful catalyst for enhancing adaptability and responsiveness. Together, these strategic priorities support the design and implementation of robust, flexible, and decentralized supply chains capable of withstanding future disruptions.

Keywords

Supply chain decentralisation, Disruption, Digital technology, Resiliency, Digital transformation

Biographies

Keyvan Shokoufi is a PhD candidate at the College of Business, Law, and Governance at James Cook University, Australia. His research focuses on supply chain management, digital transformation, digital technologies, and circular economy. He holds a Master's degree in Socio-Economic Systems Engineering and a Bachelor's degree in Industrial Engineering. In addition to his contributions to academia and research, including the publication of ten papers, Keyvan

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Carmen Reaiche is an Associate Professor and currently serves as the MBA Business Director at James Cook University. She is an accomplished academic and project management professional with extensive experience in both academia and industry. She has held key management roles designing and implementing project management systems and strategic plans for organisations such as General Electric, Mobil, Centrelink, and Business SA. She holds an MBA from the University of Adelaide and a PhD in Management from the University of South Australia. She has published over 120 research papers and led more than 74 studies using both qualitative and quantitative methods. Her research expertise includes soft systems methodologies, innovation, industry 4.0, project management and business models for developing countries. Associate Professor Reaiche has also secured multiple research grants and has extensive teaching and supervisory experience across Australia, Venezuela, Singapore, Hong Kong, China, and Malaysia.

Eijaz Ahmed Khan is a Senior Lecturer in Management at the Faculty of Business and Law, Curtin University, Australia. He holds a PhD from Curtin University, Australia; an MBA from the Asian Institute of Technology, Thailand; and both an MBA and a BBA from the University of Dhaka. Prior to joining James Cook University, he worked at the University of Sydney and the University of Technology Sydney. Eijaz's primary research expertise and interests include the SDGs, strategy, ESG, circular economy, entrepreneurship, innovation, and supply chain management. He has published in journals such as the Journal of Cleaner Production, Journal of Business & Industrial Marketing, Global Journal of Flexible Systems Management, Asia Pacific Journal of Marketing and Logistics, Supply Chain Management: An International Journal, International Journal of Physical Distribution & Logistics Management, and the Entrepreneurship Research Journal, among others. Currently, he serves as a member of the editorial boards of the Journal of Management & Organization and the Journal of Family Business Management.

Mohammadreza Akbari is an Associate Professor of Management at CQ University, Melbourne, with research expertise in logistics, supply chain management, sustainability, and operations. He has authored over 40 journal articles and book chapters in leading academic outlets. Reza is a Certified Professional in Logistics Management, a Senior Fellow of the Higher Education Academy, and serves on the editorial board of Operations Management Research. His work closely engages with industry and regional stakeholders, contributing practical and theoretical insights into sustainable and digital supply chains.