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A Study of Supply Chain Research During the Covid-19 Pandemic Using Text Mining and Bibliometric Methods

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Abstract

The Covid-19 pandemic has been one of the significant factors in supply chain disruptions worldwide, and research in this domain has gained considerable attention during the last few years. However, it is crucial to understand the amount of attention each industry and problem gets to improve the quality of future research and identify research gaps. In this literature survey, 574 research papers from the Scopus database were retrieved and pre-processed to perform the analyses. A bibliometric study using keywords was conducted to unveil the various research themes in the current literature related to supply chains and Covid-19. Moreover, topic modelling was implemented using abstracts to contrast the results from the bibliometric analysis. From the studies, the frequent research streams are identified, clustered, and discussed. Moreover, future research avenues are highlighted. Additionally, it can be observed that both methodologies complement each other. On one side, the bibliometric study provides a broad perspective of the topics; on the other side, the modelling reveals more detailed themes. Hence, researchers could employ both approaches simultaneously when performing an analysis of the state-of-the-art to present an enriched research panorama. This study also highlights the use of both methods to accelerate the review process and attain better insights.

Keywords
Supply Chain, Covid-19, Bibliometric Analysis, Topic Modelling and Literature Review.

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Biographies

Nishant Saravanan is a final-year undergraduate pursuing a Bachelor of Technology in Production Engineering at the National Institute of Technology, Tiruchirappalli. His research interests are data analytics, operations, and supply chain management. He has pursued several research projects at the Indian Institute of Technology, Madras, and the Indian Institute of Management, Indore related to Multi-Criteria Decision Making and supply chain management, respectively. He was also selected to be a Mitacs Globalink Research Scholar from a pool of Undergraduates from over 15 countries to pursue a 12-week research internship in Canada.

Jessica Olivares-Aguila received her Ph.D. in Industrial and Manufacturing Systems Engineering from the University of Windsor. Dr. Olivares-Aguila is an Assistant professor of Supply Chain Management at the Shannon School of Business at Cape Breton University. She is interested in supply chain disruptions, digital twins, and industry 4.0.

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