Organizational Resilience in the Perspective of Supply Chain Risk Management: A Scholarly Network Analysis

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Abstract: Anecdotal evidence in the last decade shows that the occurrence of disruptive events and uncertainties in the supply chain is increasing. The coupling of these events with the nature of an increasingly complex and interdependent business environment leads to devastating impacts that quickly propagate within and across organizations. For example, the recent COVID-19 pandemic increased the global supply chain disruption frequency by at least 20% in 2020 and is projected to have an accumulative cost of \$13.8 trillion by 2024. This crisis raises attention to organizational resilience to weather business uncertainty. However, the concept has been criticized for being vague and lacking a consistent definition, thus reducing the significance of the concept for practice and research. This study is intended to solve that issue by providing a comprehensive review of the conceptualization, measurement, and antecedents of operational resilience that have been discussed in the supply chain risk management literature (SCRM). We performed a Scholarly Network Analysis, combining citation-based and text-based approaches, on 252 articles published from 2000 to 2021 in top-tier journals based on three parameters: AJG ranking and ABS ranking, UT Dallas and FT50 list, and editorial board review. We utilized a hybrid scholarly network analysis by combining citation-based and text-based approaches to understand the conceptualization, measurement, and antecedents of operational resilience in the SCRM literature. Specifically, we employed a Bibliographic Coupling Analysis in the research cluster formation stage and a Co-words Analysis in the research cluster interpretation and analysis stage. Our analysis reveals three major research clusters of resilience research in the SCRM literature, namely (1) supply chain network design and optimization, (2) organizational capabilities, and (3) digital technologies. We portray the research process in the last two decades in terms of the exemplar studies, problems studied, commonly used approaches and theories, and solutions provided in each cluster. We then provide a conceptual framework on the conceptualization and antecedents of resilience based on studies in these clusters and highlight potential areas that need to be studied further. Finally, we leverage the concept of abnormal operating performance to propose a new measurement strategy for resilience. This measurement overcomes the limitation of most current measurements that are event-dependent and focus on the resistance or recovery stage - without capturing the growth stage. In conclusion, this study provides a robust literature review through a scholarly network analysis that increases the completeness and accuracy of research cluster identification and analysis to understand conceptualization, antecedents, and measurement of resilience. It also enables us to perform a comprehensive review of resilience research in SCRM literature by including research articles published during the pandemic and connects this development with a plethora of articles published in the last two decades. From the managerial perspective, this study provides practitioners with clarity on the conceptualization and critical success factors of firm resilience from the SCRM perspective.

Keywords: supply chain risk management, organizational resilience, scholarly network analysis, systematic literature review

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