

A Short Communication on Supply Chain Risk Management (SCRM)

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Description

Globalization of trade made supply chains more complex. Its integration with other networks increased the risks in supply chain management (SCM). Risk Management refers to the strategic management of supply chain networks through constant risk assessment to ensure resilience in supply chains. The risk is specific to an area of business or the field of study [1]. A supply chain has many players, and the larger the number of players, the greater the risks [2]. Nevertheless, constructing a robust supply chain is expensive [3].

According to Supply chain risks is defined as “the probability of an incident associated with inbound supply from individual supplier failures or the supply market, occurring in which its outcomes result in the inability of the purchasing firm to meet customer demand or cause threats to customer life and safety” [4]. Supply Chain Risk Management (SCRM) is a systematic and phased approach for recognizing, evaluating, ranking, mitigating, and monitoring potential disruptions in supply chains [5]. Globalization, shorter product lifecycles, multifaceted networks of trade partners in many countries, uncertainty in market demands, cost pressures, outsourcing, and offshoring are a few risks in SCM [6,7]. SCM complexities are rising, and the networks are becoming more complex, resulting in more uncertainty in the business environment [8-10]. Global supply chains have many challenges and greater risks [11-13].

Risks cause disruptions, which flows through the network of the supply chains. SCRM ensures the smooth functioning of supply chains [14]. Risk can be termed as vulnerability, uncertainty, disruption, disaster, peril, or hazard. The risks associated with global supply chain management have created a discourse among practitioners and academics. Supply chain risk management is an integral function of the supply network. It faces unpredictable challenges due to a country's economic policies and economic integration with other nations, which raised the complexity in the global supply chain network.

The focus on supply chain risks and SCRM has increased between 2010-2019. The total number of documents published in peer-reviewed journals with “risk” in their titles, keywords, or abstracts in the EBSCO premium databases between 2010 and 2019 was 455. This number includes papers published in ABDC and non-ABDC journals. The number of publications on risk factors in supply chain management increased between 2010 and 2019 due to uncertainty and risk exposure. The papers published in non-ABDC journals were 143 (455/143=31.43%) in the form of articles, case studies, opinions, and interviews. The papers published in ABDC listed journals were 312 (455/312=68.57%) as an article or case study.

Further, there were 48 A* category publications between 2010 and 2019, compared to 200 A category research publications on SCRM. The B and C category journals had 48 and 16 research publications, respectively. Seven journals topped the list of publications on SCRM. The maximum numbers of publications (41) on risk were published in the International Journal of Production Economics by Elsevier, followed by the International Journal of Production Research with 31 publications (Table 1).

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Received: June 11, 2021; Accepted: June 25, 2021; Published: July 02, 2021

Journal name	No. of publications
International Journal of Production Economics	41
International Journal of Production Research	31
Journal of Cleaner Production	19
Computers and Industrial Engineering	19
European Journal of Operational Research	13
Benchmarking: An International Journal	11
Industrial Management and Data Systems	10

Table 1. Journal publishing on SCRM.

Provides the list of journals with the corresponding number of publications that published highest number of papers on SCRM [15]. This comprehensive classification of publications in top journals could help researchers conduct more detailed analyses based on risk factors affecting SCM networks. This indicates that the need for a greater focus on risks in global supply chains is needed [16-22].

Conclusion

Global supply chains require a retrieval plan to ease the effects of disasters. There are a few authors who have suggested empirically grounded research tools in SCM, such as mathematical programming models and simulation models, analytical hierarchy processes, complexity and graph theories, and the development of models considering interdisciplinary research for further research in SCRM. Supply chains form the backbone of the global economy and promote trade, consumption, and economic growth. The changing phases of globalization, lean manufacturing processes, and outsourcing to low-income countries have made supply chain networks more efficient and changed their supply chain risk profile.

References

1. AJemison, David B. “Risk and the Relationship Among Strategy, Organizational Process, and Performance.” *Manag Sci* 33 (1987): 1087-1091.
2. Braithwaite, A and Hall D. “Risky Business? Critical Decisions in Supply Chain Management.” *Supply Chain Practice* 1 (1999): 40-55.
3. Nooraie, V, and Parast M M. “Mitigating Supply Chain Disruptions Through the Assessment of Trade-Offs Among Risks, Costs, and Investment in Capabilities.” *Int J Prod Econ* 171 (2016): 8-21.
4. Zsidisin, George A. “A Grounded Definition of Supply Risk.” *J Purch Supply Manag* 9 (2003): 217-224.
5. Aqlan, Faisal and Lam Sarah S. “Supply Chain Optimization Under Risk and Uncertainty: A Case Study for High-End Server Manufacturing.” *Comput Ind Eng* 93 (2016): 78-87.
6. Hachicha, W and Elmsalmi M. “An Integrated Approach Based-Structural Modelling for Risk Prioritization and Supply Network Management. *J Risk Res* 17 (2014): 1301-1324.

7. Lavastre, Oliver, Angappa Gunasekaran and Spalanzani A. "Supply Chain Risk Management in French Companies." *Decis Support Syst* 52 (2012): 828-838.
8. Melnyk, Steven A, Gary L Ragatz and Zsidisin George A. "The Dark Side of Supply Chain Management. *Supply Chain Manag Rev* 9 (2005): 46-52 .
9. Sofyalıoğlu, Çigdem and Kartal Burak. "The Selection of Global Supply Chain Risk Management Strategies by Using Fuzzy Analytical Hierarchy Process-A Case from Turkey." *Procedia Soc Behav Sci* 58 (2012): 1448-1457.
10. Verbano, Chiara and Venturini Karen. "Development Paths of Risk Management: Approaches, Methods, and Fields of Application." *J Risk Res* 14 (2011): 519-550.
11. Blackhurst, J, Craighead C W, Elkins D and Handfield R B. "An Empirically Derived Agenda of Critical Research Issues for Managing Supply-Chain Disruptions." *Int J Prod Res* 43 (2005): 4067-4081.
12. Chopra, Sunil and Sodhi, ManMohan S. "Managing Risk to Avoid Supply-Chain Breakdown: By Understanding the Variety and Interconnectedness of Supply-Chain Risks, Managers can Tailor Balanced, Effective Risk-Reduction Strategies for their Companies." *MIT Sloan Manag Rev* 46 (2004).
13. Tang, S Christopher. "Robust Strategies for Mitigating Supply Chain Disruptions." *Int J Logist Res Appl* 9 (2007): 33-45.
14. Christopher, M and Lee H. "Mitigating Supply Chain Risk Through Improved Confidence." *Int J Phys Distrib Logist Manag* 34 (2004): 388-396.
15. Gurtu, Amulya and Johny Jestin. "Supply Chain Risk Management: Literature Review." *Risks* 9 (2021): 16.
16. Bryson, Kweku Muata, Millar Harvey, Joseph Anito and Mobolium Ayodele. "Using Formal MS/OR Modelling to Support Disaster Recovery Planning." *Eur J Oper Res* 141 (2002): 679-688.
17. Colicchia, C and Strozzi F. "Supply Chain Risk Management: A New Methodology for a Systematic Literature Review." *J Supply Chain Manag* 17 (2012): 403-418.
18. Juttner, Uta, Peck Helen and Christopher Martin. "Supply Chain Risk Management: Outlining an Agenda for Future Research." *Int J Logist Res Appl* 6 (2010): 197-210.
19. Khan, O and Burnes B. "Risk and Supply Chain Management: Creating a Research Agenda." *Int J Logist Manag* 18 (2007): 197-216.
20. Rao, S and Goldsby T J. "Supply Chain Risks: A Review and Typology." *Int J Logist Manag* 20 (2009): 97-123.
21. Thun, Jorn, Drüke Martin and Hoening Daniel. "Managing Uncertainty-An Empirical Analysis of Supply Chain Risk Management in Small and Medium-Sized Enterprises." *Int J Prod Res* 49 (2011): 5511-5525.
22. Vanany, Iwan, Zailani Suhaiza and Pujawan Nyoman. "Supply Chain Risk Management: Literature Review and Future Research." *Int J Inf Manage Supply Chain Manag* 2 (2009): 16-33.

How to cite this article: Johny, Jestin and Amulya Gurtu."A Short Communication on Supply Chain Risk Management (SCRM)." *Arabian J Bus Manag Review* 11 (2021): 406.