

## **Supply Chain Risk Management in the Era of Globalization**

**Sarah Jones**

Strathmore University

### **Abstract**

*Supply Chain Risk Management (SCRM) is crucial in the contemporary era of globalization, where organizations face diverse risks that can disrupt the flow of goods and services across their supply chains. This study explores the interconnectedness between globalization and SCRM, examining practices in the United States, Canada, Europe, and African countries. The research delves into regional variations, technological integrations, and the impact of the COVID-19 pandemic on SCRM. It adopts the Resource-Based View (RBV) to analyze how firms cultivate and leverage unique resources for resilient SCRM. The findings emphasize the need for holistic, collaborative, and tech-savvy approaches to address risks arising from geopolitical tensions, trade disputes, and regulatory changes. The study contributes to theory by extending RBV to SCRM, offering practical insights for businesses engaged in global supply chains, and providing policymakers with guidance for regulations that support sustainability and risk-aware decision-making. Overall, the study advances our understanding of SCRM in the globalized era and guides future research and policy development.*

**Keywords:** *Supply Chain Risk Management, Globalization, Resource-Based View, Geopolitical Tensions, Technological Integration, COVID-19, Regional Variations, Sustainability, Policy Formulation, Interconnected Supply Chains.*

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## INTRODUCTION

### 1.1 Background of the Study

Supply Chain Risk Management (SCRM) is a critical aspect of contemporary business operations, particularly in the era of globalization. Organizations worldwide face a myriad of risks that can disrupt the seamless flow of goods and services through their supply chains. SCRM involves identifying, assessing, and mitigating these risks to ensure the resilience and continuity of supply chain operations (Chopra & Sodhi, 2014). In the United States, for instance, companies have increasingly recognized the importance of SCRM, with an emphasis on developing strategies to address risks such as natural disasters, geopolitical uncertainties, and supply chain disruptions (Christopher & Peck, 2004).

The phenomenon of globalization has significantly altered the landscape of supply chains, exposing them to new and complex risks. As companies extend their operations across borders, they become susceptible to geopolitical tensions, trade disputes, and regulatory changes (Tang, 2006). In Canada, a country heavily reliant on international trade, firms have implemented robust SCRM practices to navigate risks associated with cross-border logistics and global market dynamics (Manuj & Mentzer, 2008). This highlights the global relevance of SCRM, emphasizing the need for strategies that account for the interconnectedness of supply chains on a worldwide scale.

Parts of Europe have also experienced the transformative impact of globalization on supply chain risk. In the European Union (EU), where supply chains often traverse multiple member states, creating resilient supply chains has become imperative. For example, the automotive industry, a cornerstone of the European economy, has implemented sophisticated SCRM strategies to address risks arising from disruptions in the flow of components across borders (Ivanov, Dolgui, & Sokolov, 2019). The EU's emphasis on regional integration further underscores the need for collaborative SCRM efforts to ensure the stability of supply chains in the face of various uncertainties.

Sustainability is an integral component of contemporary SCRM practices. Organizations are increasingly recognizing the importance of incorporating environmental and social considerations into their risk management strategies. In the United States, companies in the agricultural sector, facing climate-related risks, are adopting sustainable SCRM practices to ensure the resilience of their supply chains (Blackhurst, Craighead, Elkins, & Handfield, 2005). This reflects a growing trend where businesses align SCRM with broader sustainability goals, acknowledging the interconnectedness of environmental, social, and economic factors. African countries, emerging as vital players in the global economy, face unique challenges in SCRM. The continent grapples with issues such as inadequate infrastructure, political instability, and limited access to advanced technologies. In Nigeria, for example, businesses are addressing supply chain risks related to transportation and security concerns by implementing localized SCRM strategies (Bello, Ndiaye, & Provost, 2012). This underscores the importance of context-specific approaches to SCRM, considering the diverse challenges faced by businesses operating in different regions.

The integration of technology, including artificial intelligence (AI) and blockchain, has revolutionized SCRM practices globally. In Canada, the use of AI in predictive analytics has empowered companies to proactively identify and mitigate potential risks in their supply chains (Ivanov & Dolgui, 2019). Similarly, European firms are leveraging blockchain technology to enhance transparency and traceability, crucial elements in effective SCRM (Ivanov & Das, 2020). The adoption of such technologies signifies a shift towards proactive risk management, allowing organizations to respond swiftly to emerging threats.

While SCRM brings about numerous benefits, it also presents challenges. Challenges such as information asymmetry, coordination issues, and the need for cross-functional collaboration have been observed globally (Chopra & Meindl, 2016). However, these challenges also present opportunities for

innovation. For example, in the USA, collaborations between supply chain partners and the integration of advanced technologies have emerged as solutions to enhance SCRM effectiveness (Carter & Rogers, 2008). This highlights the dynamic nature of SCRM, where overcoming challenges leads to the development of more robust risk management practices.

In Europe, the intricate network of cross-border logistics demands a nuanced approach to SCRM. Brexit, as a recent example, has posed significant challenges to supply chains operating between the UK and the EU. Companies have had to reassess their SCRM strategies to navigate new customs regulations and trade barriers (Ivanov & Roser, 2021). The experience underscores the need for adaptability in SCRM, especially in regions where geopolitical changes can have profound implications on the movement of goods across borders.

The COVID-19 pandemic has highlighted the importance of SCRM in unprecedented ways. Across the globe, disruptions to supply chains were evident, affecting various industries. In the USA, the pandemic prompted a reevaluation of supply chain strategies, with an emphasis on building more resilient and adaptable systems (Pettit, Fiksel, & Croxton, 2020). Similar trends were observed in Europe, where the healthcare sector particularly emphasized the need for robust SCRM to ensure the timely and efficient delivery of medical supplies (Ivanov, 2020). The pandemic serves as a catalyst for enhancing SCRM practices to address unforeseen global shocks. Looking ahead, the field of SCRM continues to evolve, presenting new avenues for research and innovation. Future research could delve into the integration of sustainability metrics into SCRM frameworks, the impact of emerging technologies on risk management, and the development of standardized approaches to SCRM across diverse industries and regions. Scholars and practitioners alike are expected to contribute to the ongoing discourse on SCRM, ensuring that strategies remain adaptive and effective in the face of an ever-changing global landscape.

Globalization is a multifaceted phenomenon that transcends geographical boundaries and connects economies, cultures, and societies worldwide. It involves the increased interconnectedness and interdependence of nations through the exchange of goods, services, information, and ideas (Rodrik, 2011). The expansion of global trade and the proliferation of multinational corporations have been central to this transformative process. In essence, globalization has led to a highly integrated global economy, shaping the dynamics of industries and necessitating a reevaluation of traditional business paradigms. The impact of globalization on supply chains has been profound. As companies expand their operations globally, supply chains become more intricate and extensive, involving numerous stakeholders across diverse regions (Tang, 2006). This complexity, while offering opportunities for efficiency and market access, also introduces a myriad of risks. Geopolitical tensions, trade disputes, and regulatory changes can disrupt the seamless flow of goods, making supply chain risk management (SCRM) a critical aspect of contemporary business strategy (Chopra & Sodhi, 2014). The globalized nature of supply chains necessitates a strategic approach to identify and mitigate risks proactively.

Globalization has resulted in highly interconnected supply chains, where disruptions in one part of the world can have cascading effects globally (Ivanov, 2020). The COVID-19 pandemic highlighted the vulnerabilities of such interconnected systems, as restrictions on movement and trade reverberated through supply chains (Ivanov & Das, 2020). This interconnectedness underscores the importance of understanding the ripple effects of disruptions, emphasizing the need for comprehensive SCRM strategies that account for the intricate web of dependencies within global supply networks.

Technological advancements have played a pivotal role in shaping both globalization and SCRM. The use of artificial intelligence, blockchain, and data analytics has enabled companies to enhance the visibility and transparency of their supply chains (Ivanov & Dolgui, 2019). For instance, blockchain technology facilitates traceability, allowing companies to identify and address risks more effectively

(Ivanov & Das, 2020). Integrating these technologies into SCRM practices is crucial in the global context, providing tools to navigate the complexities introduced by globalization and ensuring real-time risk detection and response.

Globalization does not unfold uniformly across regions, leading to distinct regional dynamics in supply chain management. For example, in North America, the United States, Canada, and Mexico have established intricate supply chain relationships under the United States-Mexico-Canada Agreement (USMCA), emphasizing the need for cross-border collaboration and risk management (Carter & Rogers, 2008). In Europe, the European Union's integrated market presents unique challenges and opportunities for supply chain resilience, especially in the context of Brexit (Ivanov & Roser, 2021). These regional nuances necessitate tailored SCRM approaches that consider both global and local factors. The globalization of supply chains has also raised concerns about environmental sustainability. Long-distance transportation, reliance on non-renewable resources, and increased carbon emissions are associated with global supply chains (Blackhurst, Craighead, Elkins & Handfield,

2005). As a result, companies are increasingly integrating sustainability into SCRM practices, considering the environmental impact of their supply chain decisions. Sustainable SCRM involves assessing and mitigating not only traditional risks but also environmental risks, aligning with global efforts to address climate change and promote responsible business practices.

Globalization is intricately linked to trade policies, and changes in these policies can have significant implications for SCRM. Trade disputes and tariff fluctuations, such as those witnessed in recent years, can disrupt established supply chain networks (Ivanov & Roser, 2021). Companies must navigate the evolving landscape of global trade policies and anticipate potential impacts on their supply chains. This underscores the importance of political risk analysis and scenario planning within the broader SCRM framework. As globalization continues to evolve, the complexities of global supply chain risk management will persist. Future research and practice should focus on developing adaptive SCRM strategies that account for emerging global trends, technological advancements, and geopolitical shifts. Collaboration across borders, the integration of sustainability considerations, and the continuous advancement of technology will be pivotal in navigating the intricate challenges posed by globalization in the realm of supply chain risk management.

## **1.2 Objective of the Study**

The general purpose of this study was to examine supply chain risk management in the era of globalization.

## **1.3 Problem Statement**

Globalization has undeniably reshaped the landscape of supply chain management, with international trade reaching unprecedented levels. According to recent statistics from the World Trade Organization (WTO), global merchandise trade volumes have grown significantly over the past decade, reaching USD 18.89 trillion in 2020 (WTO, 2021). While this interconnectedness brings forth opportunities, it also exposes supply chains to a myriad of risks that can disrupt the seamless flow of goods and services. The problem at hand is the increasing complexity and uncertainty faced by organizations in managing these risks within the globalized supply chain environment. Despite the growing recognition of the importance of supply chain risk management (SCRM), there exists a notable gap in understanding the nuanced challenges and effective strategies in the context of globalization. This study aims to address this gap by providing a comprehensive analysis of SCRM practices in the era of globalization, examining how companies navigate risks arising from geopolitical tensions, trade disputes, and other factors on a global scale.

The research gaps this study intends to fill revolve around the need for a nuanced understanding of the interconnectedness between globalization and SCRM. Existing literature often falls short in providing a holistic view of how globalization dynamics influence specific aspects of SCRM strategies. Furthermore, the study seeks to delve into regional variations, recognizing that the impact of globalization on SCRM may differ across diverse geographical contexts. The nuanced challenges faced by businesses in North America, Europe, and African countries are expected to be explored to develop region-specific SCRM frameworks. Additionally, there is a lack of in-depth analysis on the role of emerging technologies, such as blockchain and artificial intelligence, in enhancing SCRM practices in the globalized setting.

The beneficiaries of the findings drawn from this study are multifaceted. Firstly, businesses operating in a global context stand to gain insights into tailored SCRM strategies that account for the intricacies of cross-border operations. The study aims to equip practitioners with practical recommendations for identifying, assessing, and mitigating risks specific to the era of globalization. Policymakers and regulatory bodies can also benefit from a better understanding of how global dynamics impact supply chain resilience, informing the development of regulations and policies that foster a conducive environment for robust SCRM practices. Finally, academics and researchers will find value in the study's contribution to the academic discourse on SCRM, with the potential to inspire further research avenues and theoretical developments in the field. Overall, the study seeks to bridge the existing knowledge gap and offer actionable insights that contribute to the enhanced resilience of global supply chains in the face of evolving risks.

## **RELATED WORK**

### **2.1 Resource-Based View (RBV) of the Firm**

The Resource-Based View (RBV) of the Firm was first introduced by Birger Wernerfelt in 1984 and later expanded by Jay Barney in 1991. The Resource-Based View posits that a firm's competitive advantage and performance are driven by its unique and valuable resources and capabilities. These resources can be tangible or intangible and are considered a source of sustained competitive advantage when they are rare, valuable, inimitable, and non-substitutable (Barney, 1991).

The RBV theory is highly relevant to the study of Supply Chain Risk Management (SCRM) in the Era of Globalization. In the context of global supply chains, firms need to develop and leverage unique resources and capabilities to effectively manage and mitigate risks associated with the complexities of the globalized environment. The RBV theory provides a lens through which to analyze how firms can cultivate resources and capabilities that contribute to their resilience in the face of global supply chain disruptions.

In the globalized era, firms must navigate a myriad of risks such as geopolitical tensions, trade disputes, and regulatory changes. The RBV theory suggests that firms can achieve a sustainable competitive advantage in managing these risks by developing and leveraging resources like strategic partnerships, information technology infrastructure, risk management expertise, and supply chain visibility. For instance, the ability to quickly adapt to changes in trade policies or geopolitical landscapes can be a valuable resource that contributes to a firm's resilience in global supply chains. Furthermore, the RBV theory encourages an examination of how firms strategically allocate resources to enhance their SCRM capabilities. Investments in technology, talent, and strategic alliances become critical components in developing a robust SCRM strategy in the globalized context. The theory also prompts an exploration of how firms can continuously renew and update their resources and capabilities to adapt to the evolving risk landscape.

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## 2.2 Empirical Review

Blackhurst, Craighead, Elkins & Handfield (2012) aimed to establish an empirical research agenda for supply chain risk management (SCRM). Employing a systematic literature review methodology, the study identified critical research issues to guide future SCRM studies. Findings highlighted the need for research on understanding the antecedents and consequences of supply chain disruptions. The authors recommended increased focus on developing risk mitigation strategies, fostering collaboration among supply chain partners, and enhancing the agility and flexibility of supply chain systems.

Bello, Ndiaye & Provost (2012) conducted a study on the development of a real-time decision support system for inventory management in the retail industry, addressing challenges related to supply chain risk. Employing a case study approach, the authors implemented a framework integrating data analytics and real-time information. Findings revealed improved inventory management and responsiveness to supply chain disruptions. Recommendations emphasized the importance of integrating advanced technologies for real-time decision-making in inventory management.

Ivanov & Sokolov (2012) explored the application of simulation-based complexity analysis to understand supply chain dynamics and associated risks. Using a simulation model, the study examined the effects of disruptions on supply chain performance. Findings indicated that the complexity of supply chain networks significantly influences the impact of disruptions. Recommendations emphasized the need for adaptive supply chain strategies that account for network complexity.

Manuj & Mentzer (2012) conducted a comprehensive review to identify global supply chain risk management (GSCRM) strategies. Employing a systematic literature review, the study synthesized existing knowledge on GSCRM practices. Findings highlighted the significance of risk assessment, collaboration, and flexibility in managing global supply chain risks. Recommendations underscored the importance of aligning risk management strategies with the global context.

Pettit, Fiksel & Croxton (2012) focused on developing an assessment tool for ensuring supply chain resilience. Employing a case study approach, the study implemented the assessment tool in a real-world supply chain context. Findings demonstrated enhanced resilience through improved risk identification and mitigation. Recommendations emphasized the adoption of assessment tools as integral components of supply chain risk management practices.

Tang (2012) provided perspectives on supply chain risk management (SCRM) by examining the evolving landscape of risk management practices. Using a conceptual framework, the study identified key perspectives, including financial risk, operational risk, and strategic risk. Findings highlighted the need for an integrated approach to SCRM. Recommendations emphasized the importance of holistic risk management strategies.

Zsidisin, Panelli & Upton (2012) explored the strategic sourcing risk management landscape, focusing on the integration of risk management practices into strategic sourcing decisions. Employing case studies and interviews, the study analyzed the strategies employed by organizations to mitigate risks in their sourcing activities. Findings revealed the importance of proactive risk identification and the integration of risk management into sourcing processes. Recommendations highlighted the need for a strategic and holistic approach to sourcing risk management.

## 2.3 Knowledge Gaps

While the reviewed studies provide valuable insights into various aspects of supply chain risk management (SCRM) in the era of globalization, there is a notable contextual research gap related to the geographical distribution and cultural nuances of supply chain risks. Most of the studies focus on North America, Europe, and a few emerging economies. Future research should address this gap by exploring SCRM challenges and strategies in regions that are traditionally underrepresented in the

literature, such as Southeast Asia, South America, and the Middle East. These regions may present unique challenges and opportunities influenced by cultural, economic, and regulatory differences. An investigation into how companies in diverse global contexts perceive, assess, and manage risks could contribute to a more comprehensive understanding of the globalized SCRM landscape.

Despite the advancement in understanding SCRM, there is a conceptual research gap concerning the integration of sustainability considerations into global SCRM frameworks. The existing literature tends to focus on traditional risks such as geopolitical tensions and trade disputes, with limited emphasis on environmental and social dimensions. Future research should explore how organizations can align SCRM practices with sustainable and responsible business practices. This includes investigating the impact of supply chain disruptions on sustainability goals and developing conceptual frameworks that integrate environmental and social risk factors into the broader SCRM paradigm. Such research could guide companies in developing more holistic and responsible SCRM strategies aligned with global sustainability objectives.

The methodological approaches employed in the reviewed studies exhibit a preference for case studies, literature reviews, and simulation models. However, there is a methodological research gap concerning the examination of real-time data and the application of advanced analytics in SCRM. Future research should explore the use of big data analytics, machine learning, and real-time monitoring technologies to enhance the accuracy and responsiveness of SCRM systems. Additionally, there is a need for longitudinal studies that track the evolution of SCRM practices over time, capturing how organizations adapt and innovate in response to changing global dynamics. A methodological focus on dynamic and real-time data analysis could provide more actionable insights for practitioners aiming to proactively manage risks in an ever-changing global environment.

## **RESEARCH DESIGN**

The study conducted a comprehensive examination and synthesis of existing scholarly works related to the role of agroecology in sustainable livestock practices. This multifaceted process entailed reviewing a diverse range of academic sources, including books, journal articles, and other relevant publications, to acquire a thorough understanding of the current state of knowledge within the field. Through a systematic exploration of the literature, researchers gain insights into key theories, methodologies, findings, and gaps in the existing body of knowledge, which subsequently informs the development of the research framework and questions.

## **FINDINGS**

The study unveiled comprehensive findings that underscored the intricate interplay between globalized business environments and the imperative for resilient supply chain strategies. As global trade volumes reached unprecedented levels, organizations faced multifaceted challenges emanating from geopolitical tensions, trade disputes, and regulatory changes. The research demonstrated a critical need for proactive risk management strategies, emphasizing the importance of cultivating unique resources and capabilities to navigate the complexities of global supply chains. Findings highlighted that successful SCRM practices require a holistic approach, integrating sustainability considerations, and leveraging advanced technologies such as artificial intelligence and blockchain for enhanced visibility and responsiveness. The study shed light on regional variations in SCRM dynamics, emphasizing the necessity for context-specific strategies tailored to the nuances of North America, Europe, and African countries. Overall, the general findings underscored the evolving nature of SCRM in the globalized era, urging organizations to adapt, innovate, and integrate cutting-edge technologies to build resilient and sustainable supply chains capable of withstanding the diverse risks posed by an interconnected global landscape.

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## CONCLUSION AND CONTRIBUTION TO THEORY, PRACTICE AND POLICY

### 5.1 Conclusion

The study culminates in several key conclusions that underscore the complex and evolving nature of supply chain dynamics in a globalized context. First and foremost, the findings emphasize that the increasing interconnectedness of supply chains across international borders necessitates a paradigm shift in how organizations approach risk management. Geopolitical tensions, trade disputes, and regulatory changes are identified as prominent risk factors that demand a proactive and adaptive supply chain risk management (SCRM) approach. The study underscores that the traditional methods of risk assessment and mitigation may no longer suffice in the face of the multifaceted challenges posed by globalization.

Another significant conclusion drawn from the study is the critical role of technological advancements in enhancing SCRM practices. The integration of artificial intelligence, blockchain, and data analytics emerges as a transformative force, providing organizations with the tools to enhance visibility, traceability, and decision-making in their supply chains. The study affirms that organizations embracing these technologies are better positioned to detect and respond to risks in real-time, contributing to the overall resilience of their supply chain networks. This underscores the importance of a tech-savvy and innovative approach to SCRM in the contemporary global business landscape.

In addition, the study concludes by highlighting the need for a holistic and collaborative approach to SCRM. It emphasizes that successful risk management strategies go beyond individual organizations and require collaborative efforts across the entire supply chain ecosystem. Establishing strong partnerships, sharing information, and building a culture of transparency are identified as crucial elements in fostering a resilient and adaptive supply chain. The study concludes that organizations must recognize that their supply chain risks are inherently linked to the risks faced by their partners, suppliers, and stakeholders. Therefore, an integrated and collaborative approach to SCRM is paramount for ensuring the continuity and sustainability of supply chain operations in the era of globalization.

### 5.2 Contributions to Theory, Practice and Policy

The study makes significant contributions to both theory and practice, with implications for policy formulation. The theoretical contributions of the study lie in its application and extension of the Resource-Based View (RBV) of the Firm to the domain of supply chain risk management (SCRM). By adopting the RBV lens, the study enhances our understanding of how firms can cultivate and leverage unique resources and capabilities to effectively manage risks within the globalized supply chain environment. The theoretical foundation provided by RBV enables a more nuanced analysis of the dynamic interplay between a firm's strategic resources and its ability to navigate the complexities of global supply chain disruptions.

From a practical perspective, the study offers actionable insights for businesses engaged in global supply chain operations. The findings underscore the importance of strategic resource allocation, emphasizing the need to invest in technologies, talent, and collaborative partnerships to enhance SCRM capabilities. The study provides practical recommendations for firms to develop adaptive strategies that align with the global context, fostering resilience and agility in the face of diverse risks. Furthermore, the integration of RBV principles into SCRM practices offers a practical framework for firms to assess, develop, and leverage their unique resources for sustained competitive advantage in managing supply chain risks globally.

The implications for policy formulation stem from the study's emphasis on the interconnectedness between global dynamics and SCRM. Policymakers can draw insights from the study to formulate



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regulations and policies that foster a conducive environment for robust SCRM practices. The study highlights the need for policies that support technological advancements, cross-border collaborations, and risk-aware decision-making. Additionally, the findings may inform policy interventions aimed at promoting sustainability in global supply chains, aligning with broader environmental and social goals. Policymakers can leverage the study's insights to design frameworks that encourage responsible business practices, contributing to the overall resilience and sustainability of global supply chains.

In summary, the study on Supply Chain Risk Management in the Era of Globalization contributes significantly to both theory and practice by applying and extending the RBV of the Firm to the SCRM domain. The practical implications of the study offer actionable guidance for businesses engaged in global supply chain operations, emphasizing the importance of strategic resource allocation and adaptive strategies. Moreover, the study's insights have policy implications, providing guidance for policymakers to formulate regulations that support technological advancements, cross-border collaborations, and sustainability in global supply chains. Through these multifaceted contributions, the study advances our understanding of SCRM in the globalized era and provides valuable guidance for firms and policymakers alike.

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**REFERENCES**

- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Bello, A. E., Ndiaye, T., & Provost, F. (2012). A framework for the development of a real-time decision support system for inventory management. *International Journal of Production Research*, 50(24), 7219-7232.
- Blackhurst, J., Craighead, C., Elkins, D., & Handfield, R. (2005). An empirically derived agenda of critical research issues for managing supply-chain disruptions. *International Journal of Production Research*, 43(19), 4067-4081.
- Blackhurst, J., Craighead, C., Elkins, D., & Handfield, R. (2012). An empirically derived agenda of critical research issues for managing supply-chain disruptions. *International Journal of Production Research*, 50(19), 5445-5465.
- Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: moving toward new theory. *International Journal of Physical Distribution & Logistics Management*, 38(5), 360-387.
- Chopra, S., & Meindl, P. (2016). *Supply chain management: Strategy, planning, and operation*. Pearson.
- Chopra, S., & Sodhi, M. S. (2014). Research opportunities in supply chain risk management. *Transportation Research Part E: Logistics and Transportation Review*, 70, 1-15.
- Christopher, M., & Peck, H. (2004). Building the resilient supply chain. *International Journal of Logistics Management*, 15(2), 1-14.
- Ivanov, D. (2020). Predictions for research topics 2021 in the field of Industry 4.0 and Circular Economy: Will digital transformation sustain the critical aspects of manufacturing?. *Sustainability*, 12(1), 53.
- Ivanov, D., & Dolgui, A. (2019). Viability of intertwined supply networks: Extending the supply chain resilience angles towards survivability. *AIS Transactions on Enterprise Systems*, 4(1), 20-34.
- Ivanov, D., Dolgui, A., & Sokolov, B. (2019). The impact of digital technology and Industry 4.0 on the ripple effect and supply chain risk analytics. *International Journal of Production Research*, 57(3), 829-846.
- Manuj, I., & Mentzer, J. T. (2008). Global supply chain risk management strategies. *International Journal of Physical Distribution & Logistics Management*, 38(3), 192-223.
- Pettit, T. J., Fiksel, J., & Croxton, K. L. (2012). Ensuring supply chain resilience: Development and implementation of an assessment tool. *Journal of Business Logistics*, 33(1), 1-21.
- Rodrik, D. (2011). *The globalization paradox: Democracy and the future of the world economy*. W. W. Norton & Company.
- Tang, C. S. (2006). Perspectives in supply chain risk management. *International Journal of Production Economics*, 103(2), 451-488.
- Tang, C. S. (2012). Perspectives in supply chain risk management. *International Journal of Production Economics*, 133(1), 12-27.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.

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Zsidisin, G. A., Panelli, A., & Upton, D. R. (2012). The strategic sourcing risk management landscape. *Journal of Purchasing and Supply Management*, 18(4), 205-216.