Sustainable and Dynamic Supply Chain in World Business: Recent Trends

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***Abstract*— By moving from the "integrated" to the "dynamic" supply chain model, businesses may see their supply chains as flexible ecosystems of people, processes, capital assets, technology, and data. In the rapidly evolving corporate world, effective supply chain management (SCM) is a critical issue. Dynamic SCM necessitates good decision information synchronization and integrated decision-making among autonomous chain partners. Complex supply chains (SCs), which are part of globalised economic systems, must be managed to minimize sustainability-related risks and to manage environmental and social impacts in accordance with the expectations of many stakeholders. The analysis of recent trends has highlighted the fact that use of quantitative modelling techniques for sustainable supply chain management (SSCM) is increasingly becoming more and more popular. Secondly, simulation techniques are underrepresented in SSCM compared to analytical models and mathematical programming. For organizations that are looking to infuse a fresh breath in there SCM operations inclusion of system dynamics (SD) modelling for simulating and analyzing complex and dynamic systems as well as for assisting long-term, strategic decision-making will pay rich dividends.**

***Keywords*—** *Dynamic Supply Chain, Integrated Supply Schin, System Dynamics, Transformative Supply Chain, Business Strategy, Planning, Management, Decision Making*

1. Introduction

Supply chains are intricate, dynamic network systems that alter in size, structure, and configuration over time [1]. When structural changes occur, the supply chain structural dynamics theory investigates how they affect network topology and design and creates strategies for managing and enhancing such processes [2]. Both positive and negative developments, such as emerging disruptive technology (like block chain) and disruptive risks, can be considered when analyzing supply chain structural dynamics [3].

Significantly, the topic of sustainable development has recently grown rapidly, attracting the attention of communities and enterprises all around the world. As a result, today's globalization and escalating market competitiveness have significantly changed the supply chain demand, prompting the government and other stakeholders to promote the incorporation of sustainable practices. Significantly, this emerging idea prompted businesses to create business strategies that prioritized supply chain sustainability on the social, economic, and ecological levels [4].

To guarantee sustainability in Supply Chains (SCs), planning and coordinating operations are fundamentally necessary [5]. Operations management has always placed a strong emphasis on the efficacy, economy, and efficiency of SCs. However, corporations are being forced to re-evaluate their operational plans to consider the views of social and environmental sustainability as a result of increasing demand from governments and SC stakeholders. Since the United Nation proposed Sustainable Development Goals (SDGs) for 2030, there is more momentum. Additionally, operations management research has begun to incorporate sustainability in SCs from an operational excellence standpoint [6], [7].

Operations sustainability is a major, new challenge for enterprises. SSCs commonly study SC activities including quality control, lean manufacturing, six sigma, IT deployment, material sourcing, inventory management, and reversed logistics operations. The majority of currently published publications on SSCs cover topics like CSR, green sourcing, supplier selection, and the five R's of sustainability (reduce, recycle, reuse, remanufacture, and redesign). But recently, a variety of operational excellence-based paradigms—including big data, blockchain, the Circular Economy (CE), internet of things, industry 4.0, the Theory of Constraints, business process reengineering, etc.—have been included into the SSC literature [8]-[16].

In fact, the current state of the markets has strongly prompted groups for sustainable development. Most businesses have been prompted by the current situation to adopt sustainable supply chain strategies (SSCS) in order to meet their objectives. In support of this idea, research demonstrates how creating a sustainable business plan in supply chain management aids the organization in achieving its corporate goals. A sustainable supply chain

framework therefore shows that businesses' initiatives assist them in achieving sustainable goals and management support. Perhaps management is motivated to concentrate on creating sustainable strategy designs because of realizing how important increasing sustainability is. As a result, this sustainability concept obliges businesses to implement sustainable supply chain management at all organizational levels [17]-[20].

The sustainability idea also gives the companies an edge in their strategic alignment to SSCS, aligning with their corporate objectives. Companies perform better thanks to the sustainable competitive advantage (SCA), which helps them outperform their competitors. Considering this articulation, the study demonstrates how an ongoing competitive edge boosts business performance, financial results, and staff loyalty. Achieving the triple sustainability component is also encouraged by the company's strategic tool, or SCA (i.e., economic, social, ecological). Given this claim, the study demonstrates that businesses who adopt supply chain strategies have a significant competitive edge in today's highly dynamic business climate. In total, this idea of balanced sustainability growth raises the worth of the businesses, ensuring long-term advancement and competitiveness [22]-[24].

Numerous investigations of sustainable supply chain (SSC) practices, their motivators, and their effects on the efficiency and competitiveness of organizations have been made. There is research devoted to creating the networks for green, reverse, and closed loop supply chains as well as to optimizing planning procedures. A thorough list of these study types may be found in Table 1.

Table 1. Supply Chain Dynamics [21]

Decision-making levels	Supply chain structures					
	Organizational	**Functional**	**Information**	**Financial**	**Product**	**Technical**
Strategic (triggered by long-term disruptions and tactical-operative dynamics)	Re-design of facility and supplier networks in the supply chain	Re-allocation of functions in the supply chain	Re-design of supply chain information infrastructure	Re-design of supply chain financial flows	Product re-design	Re-design of technical supply chain equipment
Tactical (triggered by medium-term disruptions)	Supply chain resilience analysis and Ripple effect control	Supply chain re-planning and reconfiguration	Information system reconfiguration	Payment schemes and contract adjustments	Product postponement	Modernization of technical equipment
Operational (triggered by short-term oscillations)	Dual sourcing and backup suppliers	Supply chain stability analysis and Bullwhip effect control	Information coordination adjustments	Cash-flow re-directions	Product substitution	Operative re-allocation of production lines

However, studies addressing the problems relating to alignment between SSC practises, processes, and structures are rarely found in the literature, except for a few study publications.

2. Literature Review

2.1 Dynamic supply chain in business management

Social media outlets are constantly influencing the qualities of products and services. Manufacturers are finding it difficult to keep up, let alone advance, with the changing and quickening wants and purchasing habits of the modern consumer. Companies are attempting to reconcile their supply chains with volatility that is roughly twice as great as anything they have faced in the past 30 years, when you include geopolitical upheaval, volatile currency markets, and natural disasters [25]-[27].

Additionally, all indications point to the fact that the time in which we find ourselves is one of ongoing volatility. And the "new normal" is this continual shift that is inherent in today's macroeconomic business environment. It's resulting in a situation that's putting unheard-of pressure on how companies' source, produce, and distribute goods. Many people could feel as though they are waging a lost struggle [21], [27]-[29].

Thankfully, there is a way to create a supply chain that enables businesses to profit from market circumstances, providing them a significant competitive advantage. The so-called "dynamic supply chain" enables companies to weigh potential chances to spur economic value creation and expansion against the dangers of any potential disruptive occurrences [30], [31].

Corporate social responsibility includes corporate environmental responsibility, which is crucial. A fixed-effects model was used to investigate the link between the two using data from Chinese listed businesses from 2010 to 2018; supply chain net cash ratio was used as a stand-in for supply chain power. According to the study, upstream suppliers' and downstream consumers' environmental responsibility is significantly enhanced by supply chain power. Power in the supply chain has a vertical spill over effect on corporate environmental responsibility. The mediating role of business performance between the two was investigated using a stepwise regression methodology, and its existence was tested using the bootstrap method. Businesses can utilize their influence in the supply chain to fairly distribute earnings, which not only enables them to uphold their environmental responsibilities but also influences other businesses in the chain to do the same [31]. Business performance of a firm is impacted by supply chain power. There is a continuous causal link between a supplier firm's performance and the concentration of its customer base. The dynamic relationship lifecycle hypothesis using a recently expanded dataset of supplier-customer relationships discovered concentration and profitability was significantly negative in the early years of the relationship.

But as the bond grew stronger, the relationship improved [32]. Shifts in the market's customer concentration had an impact on the supplier's fundamentals and the stock price of the company. Corporate environmental responsibility is significantly influenced by a company's business performance [33]. Through its advantages in terms of resources, information, and control, a corporation's supply chain power improves its business performance, and stronger business performance helps a firm better fulfil its environmental obligations.

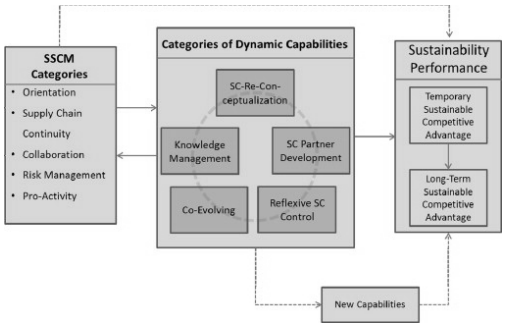

Figure 1. Categories of dynamic supply chain

2.2 From integrated to dynamic supply chain

Companies can view their supply chains as adaptive ecosystems of processes, people, capital assets, technology, and data by switching from an "integrated" to a "dynamic" supply chain model. They focus on operational agility that generates profitability rather than just short-term efficiencies and aim for flexibility where it counts.

Dynamic supply chains can cater to the unique requirements of each client channel in volatile marketplaces. A corporation might create highly adaptive manufacturing and distribution networks for the front end of the product lifecycle and shift more affordable techniques to the back end, for instance, if a certain product is particularly susceptible to media trends. Or, if a certain consumer group is highly cost-sensitive, the supply chain for that product must ruthlessly eliminate any unnecessary waste and costs [34], [35].

Only 10% of firms actively manage toward having a resilient supply chain, despite the fact that most companies seek to do so, according to research from Accenture. This group benefits from doing so since, on average; they are 75% more profitable than their rivals [35].

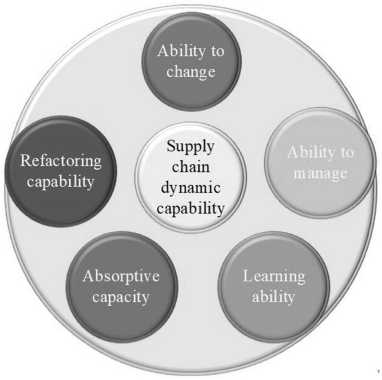

Figure 2. Composition of dynamic supply chain management

2.3 The first way to Dynamism

There are three first steps that any organization may take to restart the process, even if the process of becoming a fully dynamic supply chain model needs to be tailored to the strategic goals of each unique company (and even each business unit):

"Portfolio of supply chains" comes to mind. A corporation should first identify its own supply chains. In order to achieve this, supply chains are first segmented based on the product, the client, and the geography of the firm. The properties of each chain are then compared by functional area to determine which are unique and which are standard [36].

2.3.1 The dynamic operating model should be defined. A dynamic supply chain has four essential features that, when used in tandem, create a model that allows for the proper degree of adaptation, flexibility, and reactivity [37].

2.3.2 Sense, Shape, and React: Is the business able to transform data into insights that can be rapidly communicated with decision-makers throughout your organisation?

2.3.3 Flexible Product Strategy: Are your manufacturing and delivery capabilities perfectly matched with your product development strategy and processes? Are new items being positioned to enter the market rapidly and be of the utmost importance? [38]

2.3.4 Agile Execution: Is the business agile enough to meet the rapidly evolving expectations of its current consumers before the competition?[34]

2.3.5 Operational Hedging: Is the business prepared to use tradeoff optimization to turn threats into a competitive advantage?

2.3.6 Establish a transformational blueprint with values in order. Sequencing is just as crucial as scheduling because every firm aims to manage change without

jeopardising ongoing operations. Several capabilities releases that build on one another make up a robust dynamic supply-chain roadmap. This begins with fundamental actions and fast victories that generate cash flow quickly and result in quantifiable operational and financial outcomes at each stage of the journey. It is possible for changes to become self-funding with the right sequencing [39].

Companies may build and maintain various supply networks with a level of agility that enables them to react to both opportunities and threats by switching to a dynamic supply chain model. Businesses that make this transformation will therefore be in a position to easily accept the unpredictable [35].

3. Discussion

3.1 Supply chain structural dynamics

The impact of structural parameters and their dynamics on supply chain resilience by assessing pre- and post-disaster supply chain resilience based on network structural elements with CVaR as a risk measure has been researched extensively. The authors use an empirically validated dataset to evaluate resilience as a compounding function of density, centrality, connectivity, and network size. Using a conditional value at risk (CVaR) technique, the authors show that firms with the lowest supply network density and centrality and the highest connectivity and network size display the highest resilience [40].

3.2 COVid-19 and dynamic supply chain strategy

For supply chain managers, sustainability presents several issues because it is a long-term dynamic process that "meets the requirements of the present without jeopardising the ability of future generations to fulfil their own needs." They must address interwoven social, environmental, and financial goals throughout the supply chain if they are to achieve sustainability. SSC aims to improve organizations' social, economic, and environmental performance while reducing the negative effects of supply chain operations. Business companies have started using SSC as a tool to improve their reputation and brand image. Additionally, SSC reduces risks and vulnerabilities including environmental harm and workforce shortages, which can increase corporate stability and decrease production and distribution delays and costs [41]-[44].

Nevertheless, many businesses in developing nations today lack the knowledge necessary for successfully implementing and modifying sustainability strategies. This is mostly because the field of sustainability research is currently poorly defined, developed, or implemented. The remarks amply demonstrate the necessity of having a conversation on sustainability in SCs in order to uphold justice and offer opportunities for sustainable performance in developing countries. When compared to the competitive market circumstances in other emerging countries, their economies have received extra attention due to the growing unpredictability and issues associated with SSC [5], [45], [46].

3.3 Paradigm shift of towards transformative supply chain management

The bulk of prevalent supply chain management (SCM) theories promote a global search for cheap labour and resources because they have a reductionist and static perspective on the supply chain and its management. As a result, supply chains usually operate without any attention for their larger contextual settings. The weak and harmful mechanisms that supply chains have become are ignored from this point of view. The dynamic and intricate relationships between supply chain architecture and processes and current and recent crises have been demonstrated. Researchers reinterpret the supply chain as a social-ecological system using panarchy theory as a framework, rejecting a modernist understanding of SCM in favour of a more contemporary idea known as "dancing the supply chain." A panarchy is a collection of interrelated adaptive cycles. A panarchy is an interconnected system of adaptive cycles operating on different time, space, and meaning scales. It is the cornerstone of transformative SCM and better captures the complexities of the reality than static and reductionist theories ever could [47].

4. Conclusion

Innovation is a general activity linked to expansion and survival. Firms must embrace innovation in its broadest definition, which includes both new technology and new methods of doing things, to gain a competitive edge through it [48]. Supply chain innovation, also known as supply chain optimization, has the potential to significantly improve performance and competitiveness. SCI is viewed as a way of thinking and acting that allows for the creative exploration and exploitation of SCM opportunities in order to gain competitive advantages. By fusing technological advancements with improvements to the logistical and marketing processes, it strives to increase operational efficiency as well as the effectiveness of services [49, 50]. Low service levels, protracted lead times, or high supply chain costs are common issues that can lead to the need for SCI as well as more drastic changes in the external environment like modifications to

pertinent regulations, shifts in consumer preferences, and the introduction of new technologies. Modern technology has the potential to greatly improve SC procedures when used to streamline such processes. The British supermarket retailer Tesco, for instance, was able to cater to its many clients by using the force of innovation. The third-largest retailer in the world was able to make store-level modifications and forecast changes in customer behaviour by using big data analytics to examine the purchasing patterns of over 13 million customers [48].

Over the past few decades, the global business environment has grown incredibly dynamic and difficult. Business organizations can no longer rely on suppliers located within a country because modern business practices increasingly call for a global dispersion of activity. The complexity of business needs for a sophisticated and sustainable global supply chain has caused the supply networks to transcend national boundaries. Any supply chain's viability, efficacy, and efficiency are influenced by a wide range of variables. This paper gives a broad review of the various factors that contribute to supply chains' sustainability, efficiency, and efficacy in today's cutthroat marketplace. Based on the literature studies that are currently available, the paper has outlined the elements that contribute to any supply chain's performance in the cutthroat business environment of today. Dynamic SCM necessitates good decision information synchronization and integrated decision-making among autonomous chain partners. Complex supply chains (SCs), which are part of globalised economic systems, must be managed to minimize sustainability-related risks and to manage environmental and social impacts in accordance with the expectations of many stakeholders. The analysis of recent trends has highlighted the fact that use of quantitative modelling techniques for sustainable supply chain management (SSCM) is increasingly becoming more and more popular. Secondly, simulation techniques are underrepresented in SSCM compared to analytical models and mathematical programming. For organizations that are looking to infuse a fresh breath in there SCM operations inclusion of system dynamics (SD) modelling for simulating and analyzing complex and dynamic systems as well as for assisting long-term, strategic decision-making will pay rich dividends. Future research on supply chain management practices around the world can build on the findings of this study, and they may also be utilized to create a modern instrument for measuring the sustainability, efficiency, and efficacy of supply chains.

References

[1] MacCarthy, B.L., et al., Supply chain evolution – theory, concepts and science. International Journal of Operations & Production Management, 2016. 36(12): p. 1696-1718.

[2] Srinivas, K., and Raj, KB., A Study on Interdisciplinary Conceptual Integration of Supply Chain Management and Talent Management. International Journal of Supply Chain Management, Vol 8 No 2, p.284-289, 2018.

[3] Dolgui, A., D. Ivanov, and B. Sokolov, Ripple effect in the supply chain: an analysis and recent literature. International Journal of Production Research, 2018. 56(1-2): p. 414-430.

[4] Shaharudin, M.R., et al., A Content Analysis of Current Issues in Supply Chain Management). International Journal of Supply Chain Management, Vol 7 No 5, p.199-212, 2018.

[5] Bag, S., et al., Big data analytics as an operational excellence approach to enhance sustainable supply chain performance. Resources, Conservation and Recycling, 2020. 153: p. 104559.

[6] Mani, V. and A. Gunasekaran, Four forces of supply chain social sustainability adoption in emerging economies. International Journal of Production Economics, 2018. 199: p. 150-161.

[7] Sehnem, S., et al., Improving sustainable supply chains performance through operational excellence: circular economy approach. Resources, Conservation and Recycling, 2019. 149: p. 236-248.

[8] Kumar, A. and S. Rahman, RFID-enabled process reengineering of closed-loop supply chains in the healthcare industry of Singapore. Journal of Cleaner Production, 2014. 85: p. 382-394.

[9] Zhao, G., et al., Blockchain technology in agri-food value chain management: A synthesis of applications, challenges and future research directions. Computers in Industry, 2019. 109: p. 83-99.

[10] Scur, G. and M.E. Barbosa, Green supply chain management practices: Multiple case studies in the Brazilian home appliance industry. Journal of Cleaner Production, 2017. 141: p. 1293-1302.

[11] Luthra, S., et al., An integrated framework for sustainable supplier selection and evaluation in supply chains. Journal of Cleaner Production, 2017. 140: p. 1686-1698.

[12] Farias, L.M.S., et al., An ANP-based approach for lean and green performance assessment. Resources, Conservation and Recycling, 2019. 143: p. 77-89.

[13] Gaustad, G., et al., Circular economy strategies for mitigating critical material supply issues. Resources, Conservation and Recycling, 2018. 135: p. 24-33.

[14] Al-Homery, H.., et al., The application of system thinking for firm supply chain sustainability: The conceptual study of the development of the iceberg problem solving tool (IPST). International Journal of Supply Chain Management, Vol 8 No 6, p.951-956, 2019.

[15] Bhandari, D., R.K. Singh, and S.K. Garg, Prioritisation and evaluation of barriers intensity for implementation of cleaner technologies: Framework for sustainable production. Resources, Conservation and Recycling, 2019. 146: p. 156-167.

[16] Ghadimi, P., C. Wang, and M.K. Lim, Sustainable supply chain modeling and analysis: Past debate,

present problems and future challenges. Resources, Conservation and Recycling, 2019. 140: p. 72-84.
[17] Qi, Y., et al., The impact of operations and supply chain strategies on integration and performance. International Journal of Production Economics, 2017. 185: p. 162-174.
[18] Luthra, S. and S.K. Mangla, When strategies matter: Adoption of sustainable supply chain management practices in an emerging economy's context. Resources, Conservation and Recycling, 2018. 138: p. 194-206.
[19] Prajogo, D., C. Mena, and A. Nair, The fit between supply chain strategies and practices: A contingency approach and comparative analysis. IEEE Transactions on Engineering Management, 2017. 65(1): p. 168-180.
[20] Wang, J., Y. Zhang, and M. Goh, Moderating the role of firm size in sustainable performance improvement through sustainable supply chain management. Sustainability, 2018. 10(5): p. 1654.
[21] Dolgui, A. and D. Ivanov, Exploring supply chain structural dynamics: New disruptive technologies and disruption risks. Int J Prod Econ, 2020. 229: p. 107886.
[22] Bag, S., S. Gupta, and C. Foropon, Examining the role of dynamic remanufacturing capability on supply chain resilience in circular economy. Management Decision, 2018.
[23] Amponsah, C.T. and G. Ahmed, New global dimensions of business excellence. International Journal of Business Excellence, 2017. 13(1): p. 60-78.
[24] Rezaee, Z., Supply chain management and business sustainability synergy: A theoretical and integrated perspective. Sustainability, 2018. 10(1): p. 275.
[25] Kwak, D.-W., Y.-J. Seo, and R. Mason, Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains. International Journal of Operations & Production Management, 2018. 38(1): p. 2-21.
[26] Otto, C., et al., Modeling loss-propagation in the global supply network: The dynamic agent-based model acclimate. Journal of Economic Dynamics and Control, 2017. 83: p. 232-269.
[27] Brusset, X. and C. Teller, Supply chain capabilities, risks, and resilience. International Journal of Production Economics, 2017. 184: p. 59-68.
[28] Chowdhury, M.M.H. and M. Quaddus, Supply chain resilience: Conceptualization and scale development using dynamic capability theory. International Journal of Production Economics, 2017. 188: p. 185-204.
[29] Raj, A., et al., Supply chain management during and post-COVID-19 pandemic: Mitigation strategies and practical lessons learned. J Bus Res, 2022. 142: p. 1125-1139.
[30] Ivanov, D., Viable supply chain model: integrating agility, resilience and sustainability perspectives-lessons from and thinking beyond the COVID-19 pandemic. Ann Oper Res, 2020: p. 1-21.
[31] Luo, T. and R. Xie, Supply Chain Power and Corporate Environmental Responsibility: Mediation Effects Based on Business Performance. Int J Environ Res Public Health, 2021. 18(17).
[32] Irvine, P.J., S.S. Park, and Ç. Yıldızhan, Customer-Base Concentration, Profitability, and the Relationship Life Cycle. The Accounting Review, 2015. 91(3): p. 883-906.
[33] Ak, B.K., and Patatoukas, P.N., Customer-Base Concentration and Inventory Efficiencies: Evidence from the Manufacturing Sector. Production and Operations Management, 2016. 25(2): p. 258-272.
[34] Liu, W., et al., A scheduling model of logistics service supply chain based on the mass customization service and uncertainty of FLSP's operation time. Transportation Research Part E: Logistics and Transportation Review, 2015. 83: p. 189-215.
[35] Yao, J. and Z. Deng, Scheduling Optimization in the Mass Customization of Global Producer Services. IEEE Transactions on Engineering Management, 2015. 62(4): p. 591-603.
[36] Aggarwal, A., F.T.S. Chan, and M.K. Tiwari, Development of a module based service family design for mass customization of airline sector using the coalition game. Computers & Industrial Engineering, 2013. 66(4): p. 827-833.
[37] Zhou, W., R. Zhang, and Y. Zhou, A queuing model on supply chain with the form postponement strategy. Computers & Industrial Engineering, 2013. 66(4): p. 643-652.
[38] Yao, J.M., Scheduling optimisation of co-operator selection and task allocation in mass customisation supply chain based on collaborative benefits and risks. International Journal of Production Research, 2013. 51(8): p. 2219-2239.
[39] Yao, J. and Z. Deng, Dynamic resource integration optimisation of global distributed manufacturing: an embeddedness–interaction perspective. International Journal of Production Research, 2016. 54(23): p. 7143-7157.
[40] Dixit, V., P. Verma, and M.K. Tiwari, Assessment of pre and post-disaster supply chain resilience based on network structural parameters with CVaR as a risk measure. International Journal of Production Economics, 2020. 227: p. 107655.
[41] Mitchell, I.K. and J. Walinga, The creative imperative: The role of creativity, creative problem solving and insight as key drivers for sustainability. Journal of Cleaner Production, 2017. 140: p. 1872-1884.
[42] Raut, R.D., B. Narkhede, and B.B. Gardas, To identify the critical success factors of sustainable supply chain management practices in the context of oil and gas industries: ISM approach. Renewable and Sustainable Energy Reviews, 2017. 68: p. 33-47.
[43] Vargas, J.R.C., C.E.M. Mantilla, and A.B.L. de Sousa Jabbour, Enablers of sustainable supply chain management and its effect on competitive advantage in the Colombian context. Resources, Conservation and Recycling, 2018. 139: p. 237-250.
[44] Bai, C., et al., Social sustainable supplier evaluation and selection: A group decision-support approach. International Journal of Production Research, 2019. 57(22): p. 7046-7067.

[45] Ivanov, D., Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. Transportation Research Part E: Logistics and Transportation Review, 2020. 136: p. 101922.
[46] Ivanov, D., Viable supply chain model: integrating agility, resilience and sustainability perspectives—lessons from and thinking beyond the COVID-19 pandemic. Annals of operations research, 2020: p. 1-21.
[47] Wieland, A., Dancing the Supply Chain: Toward Transformative Supply Chain Management. The Journal of Supply Chain Management. 2021 Jan;57(1):58-73. doi: 10.1111/jscm.12248. Epub 2020 Dec 8.
[48] Caniato, F., A. Moretto, and M. Caridi, Dynamic capabilities for fashion-luxury supply chain innovation. International Journal of Retail & Distribution Management, 2013. 41(11/12): p. 940-960.
[49] Arlbjørn, J.S., H. de Haas, and K.B. Munksgaard, Exploring supply chain innovation. Logistics Research, 2011. 3(1): p. 3-18.
[50] Hyll, W. and G. Pippel, Types of cooperation partners as determinants of innovation failures. Technology Analysis & Strategic Management, 2016. 28(4): p. 462-476.