APPENDIX-A

Performance ratings and Importance weights of SCR variables/SCR attributes given by five experts

SCR Variables	Importance weights					SCR Attributes	Importance weights					Performance ratings				
	Wi1	Wi2	Wi3	Wi4	Wi5		Wij1	Wij2	Wij3	Wij4	Wij5	Rij1	Rij2	Rij3	Rij4	Rij5
Environmental Risk (ER)	VH	VH	H	VH	H	ER1	H	H	VH	H	VH	G	G	VG	G	VG
						ER2	VH	VH	H	VH	H	VG	VG	G	G	G
						ER3	FH	FH	H	H	H	G	G	G	VG	G
						ER4	H	H	H	H	FH	VG	G	G	G	G
						ER5	FH	M	M	FH	FH	G	G	F	G	G
						ER6	M	M	FH	FH	M	G	F	G	F	F
Information Technology Risk (IR)	H	VH	H	VH	H	IR1	H	H	VH	VH	H	VG	G	G	VG	G
						IR2	VH	H	VH	VH	H	E	G	VG	G	G
						IR3	H	H	FH	FH	M	G	F	F	G	G
						IR4	FH	H	FH	M	H	G	F	G	F	G
Supply Risk (SR)	VH	VH	H	FH	H	SR1	VH	H	VH	H	H	E	VG	VG	G	E
						SR2	VH	VH	H	H	VH	VG	E	VG	G	VG
						SR3	H	FH	H	FH	H	G	F	G	F	G
						SR4	VH	H	VH	VH	H	VG	E	G	G	VG
						SR5	H	VH	H	VH	VH	VG	E	E	VG	VG
						SR6	FH	FH	H	FH	M	G	F	F	G	G
Process Risk (PR)	H	H	H	H	VH	PR1	H	FH	FH	M	FH	G	F	F	G	F
						PR2	VH	VH	H	VH	H	E	VG	VG	E	VG

						PR3	H	VH	H	VH	H	VG	G	G	G	VG
						PR4	H	H	VH	H	VH	G	VG	VG	G	G
						PR5	VH	VH	VH	H	VH	VG	E	VG	G	E
						PR6	FH	H	FH	VH	H	G	G	G	VG	G
						PR7	VH	VH	FH	H	H	VG	VG	G	G	G
Transportation Risk (TR)	VH	H	H	FH	H	TR1	H	H	H	VH	VH	G	G	G	VG	VG
						TR2	FH	H	H	FH	FH	G	G	G	G	F
						TR3	FH	FH	VH	M	FH	G	F	F	F	G
						TR4	VH	VH	H	VH	H	G	VG	VG	G	VG
						TR5	H	H	FH	H	FH	VG	G	G	G	G
Delay Risk (DE)	FH	H	H	FH	FH	DE1	FH	FH	H	M	FH	G	G	G	F	F
						DE2	M	M	FH	M	FH	F	F	G	F	F
						DE3	VH	H	H	H	FH	VG	G	VG	G	G
						DE4	FH	FH	M	FH	FH	F	G	G	F	F
						DE5	H	FH	FH	M	M	G	G	G	VG	G
						DE6	FH	H	H	H	H	G	G	F	F	G
						DE7	VH	H	FH	FH	FH	VG	G	G	G	G
Demand Risk (DR)	VH	VH	H	FH	H	DR1	H	VH	VH	VH	H	VG	G	G	VG	G
						DR2	VH	VH	H	VH	H	VG	G	VG	VG	G
						DR3	VH	H	VH	VH	VH	E	VG	VG	E	VG
						DR4	H	VH	H	H	FH	E	VG	VG	G	G
						DR5	FH	H	H	H	H	VG	G	G	G	G
						DR6	H	FH	FH	FH	FH	G	G	G	F	G
						DR7	FH	FH	FH	H	H	G	F	G	G	G

APPENDIX-B

Average performance ratings and importance weights of SCR variables/SCR attributes

SCR Variables	Average importance weight	SCR Attributes	Average importance weight	Average performance rating
Environmental Risk (ER)	(0.79, 0.89, 0.96)	ER1	(0.76, 0.86, 0.94	(5.80, 7.10, 8.40)
		ER2	(0.79, 0.89, 0.96)	(5.80, 7.10, 8.40)
		ER3	(0.62, 0.74, 0.86)	(5.40, 6.80, 8.20)
		ER4	(0.66, 0.77, 0.88)	(5.40, 6.80, 8.20)
		ER5	(0.42, 0.59, 0.76)	(4.60, 6.20, 7.80)
		ER6	(0.38, 0.56, 0.74)	(3.80, 5.60, 7.40)
Information Technology Risk (IR)	(0.76, 0.86, 0.94)	IR1	(0.76, 0.86, 0.94)	(5.80, 7.10, 8.40)
		IR2	(0.79, 0.89, 0.96)	(6.10, 7.40, 8.60)
		IR3	(0.54, 0.68, 0.82)	(4.20, 5.90, 7.60)
		IR4	(0.54, 0.68, 0.82)	(4.20, 5.90, 7.60)
Supply Risk (SR)	(0.72, 0.86, 0.92)	SR1	(0.76, 0.86, 0.94)	(7.20, 8.30, 9.20)
		SR2	(0.79, 0.89, 0.96)	(6.90, 8.00, 9.00)
		SR3	(0.62, 0.74, 0.86)	(4.20, 5.90, 7.60)
		SR4	(0.79, 0.89, 0.96)	(6.50, 7.70, 8.80)
		SR5	(0.79, 0.89, 0.96)	(7.60, 8.60, 9.40)
		SR6	(0.50, 0.65, 0.80)	(4.20, 5.90, 7.60)
Process Risk (PR)	(0.73, 0.83, 0.92)	PR1	(0.50, 0.65, 0.80)	(3.80, 5.60, 7.40)
		PR2	(0.79, 0.89, 0.96)	(7.60, 8.60, 9.40)
		PR3	(0.76, 0.86, 0.94)	(5.80, 7.10, 8.40)
		PR4	(0.76, 0.86, 0.94)	(5.80, 7.10, 8.40)

		PR5	(0.82, 0.92, 0.98)	(7.20, 8.30, 9.20)
		PR6	(0.65, 0.77, 0.88)	(5.40, 6.80, 8.20)
		PR7	(0.72, 0.83, 0.92)	(5.80, 7.10, 8.40)
Transportation Risk (TR)	(0.69, 0.80, 0.90)	TR1	(0.76, 0.86, 0.94)	(5.80, 7.10, 8.40)
		TR2	(0.58, 0.71, 0.84)	(4.60, 6.20, 7.80)
		TR3	(0.53, 0.68, 0.82)	(3.80, 5.60, 7.40)
		TR4	(0.79, 0.89, 0.96)	(6.20, 7.40, 8.60)
		TR5	(0.62, 0.74, 0.86)	(5.40, 6.80, 8.20)
Delay Risk (DE)	(0.58, 0.71, 0.84)	DE1	(0.50, 0.65, 0.80)	(4.20, 5.90, 7.60)
		DE2	(0.38, 0.56, 0.74)	(3.40, 5.30, 7.20)
		DE3	(0.69, 0.80, 0.90)	(5.80, 7.10, 8.40)
		DE4	(0.46, 0.62, 0.78)	(3.80, 5.60, 7.40)
		DE5	(0.46, 0.62, 0.78)	(5.40, 6.80, 8.20)
		DE6	(0.66, 0.77, 0.88)	(4.20, 5.90, 7.60)
		DE7	(0.61, 0.74, 0.86)	(5.40, 6.80, 8.20)
Demand Risk (DR)	(0.72, 0.83, 0.92)	DR1	(0.79, 0.89, 0.96)	(5.80, 7.10, 8.40)
		DR2	(0.79, 0.89, 0.96)	(6.20, 7.40, 8.60)
		DR3	(0.82, 0.92, 0.98)	(7.60, 8.60, 9.40)
		DR4	(0.69, 0.80, 0.90)	(6.50, 7.70, 8.80)
		DR5	(0.66, 0.77, 0.88)	(5.40, 6.80, 8.20)
		DR6	(0.54, 0.68, 0.82)	(4.60, 6.20, 7.80)
		DR7	(0.58, 0.71, 0.84)	(4.60, 6.20, 7.80)

APPENDIX-C

Fuzzy Performance Importance Index (FPII) and Ranking Score of SCR Attributes

SCR Attributes	FPII	Ranking score
ER1- Natural disaster	(1.39, 0.99, 0.50)	0.98
ER2- Man-made disaster	(1.22, 0.78, 0.34)	0.78
ER3- Political instability	(2.05, 1.77, 1.15)	1.71
ER4- Change in government regulation	(1.84, 1.56, 0.98)	1.51
ER5- Economic imbalances	(2.67, 2.54, 1.87)	2.45
ER6- Seasonal production	(2.36, 2.46, 1.92)	2.36
IR1- Distortions in information sharing	(1.39, 0.99, 0.50)	0.98
IR2- Failure in IT systems	(1.28, 0.81, 0.34)	0.81
IR3- System integration	(1.93, 1.89, 1.37)	1.81
IR4- Cyber-attacks, virus etc.	(1.93, 1.89, 1.37)	1.81
SR1- Supplier failure	(1.73, 1.16, 0.55)	1.15
SR2- Supplier fulfilment errors	(1.45, 0.88, 0.36)	0.89
SR3- Selection of wrong partner	(1.60, 1.53, 1.06)	1.47
SR4- Poor responsiveness and delivery performance	(1.37, 0.85, 0.35)	0.85
SR5- Inflexibility of supply source	(1.60, 0.95, 0.38)	0.96
SR6- Supplier bankruptcy	(2.10, 2.07, 1.52)	1.98
PR1- Internal labor strikes	(1.90, 1.96, 1.48)	1.87
PR2- Shortage of skilled employees	(1.60, 0.95, 0.38)	0.96
PR3- Productivity and quality failure	(1.39, 0.99, 0.50)	0.98
PR4- Inventory and stock failure	(1.39, 0.99, 0.50)	0.98
PR5- High product cost	(1.30, 0.66, 0.18)	0.69
PR6- Changes in product designs	(1.89, 1.56, 0.98)	1.52
PR7- Lack of flexibility in manufacturing process	(1.62, 1.21, 0.67)	1.19
TR1- High paperwork and scheduling Process	(1.39, 0.99, 0.50)	0.98
TR2- Transport Union strikes	(1.93, 1.80, 1.25)	1.73
TR3- Delay at ports due to limited port capacity	(1.79, 1.79, 1.33)	1.71
TR4- Higher costs of transportation	(1.30, 0.81, 0.34)	0.82
TR5- Depends on transportation mode chosen	(2.05, 1.77, 1.15)	1.71
DE1- Excessive handling due to border crossings	(2.10, 2.07, 1.52)	1.98
DE2- Port capacity and congestion	(2.11, 2.33, 1.87)	2.22
DE3- Long Custom clearance process at ports	(1.80, 1.42, 0.84)	1.39
DE4- Delay in Material or information flow	(2.05, 2.13, 1.63)	2.03
DE5- Production failure	(2.92, 2.58, 1.80)	2.51
DE6- System breakdown	(1.43, 1.36, 0.91)	1.29
DE7- Supplier's inability to respond quickly to a change in demand	(2.11, 1.77, 1.15)	1.72
DR1- Inaccurate forecasts due to longer lead times	(1.22, 0.78, 0.34)	0.78
DR2- Bullwhip effect or information distortion	(1.30, 0.81, 0.34)	0.82
DR3- Demand uncertainty	(1.37, 0.69, 0.19)	0.72
DR4- Product variety	(2.02, 1.54, 0.88)	1.51
DR5- Short life cycles	(1.84, 1.56, 0.98)	1.51
DR6- Information distortion due to sales promotions and incentives	(2.12, 1.98, 1.40)	1.91
DR7- Exaggeration of demand during product shortage	(1.93, 1.80, 1.25)	1.73

LIST OF PUBLICATIONS

List of papers published/ accepted for publication

- Babu, H., Bhardwaj, P. and Agrawal, A.K. (2020), "Modelling the supply chain risk variables using ISM: a case study on Indian manufacturing SMEs", Journal of Modelling in Management, Vol. X, No. Y, pp.xxx–xxx. (Accepted and in production).

- Babu, H., Bhardwaj, P. and Agrawal, A.K (2020), 'Prioritization of supply chain risks in Indian manufacturing context', *International Journal of Engineering and Advanced Technology*, Vol. 9, No. 4, April, 2020, pp. 2026-2032.

- Babu, H., Bhardwaj, P. and Agrawal, A.K. (2020), "Assessment and Prioritization of Risks and SCRM Strategies in Indian Small and Medium Enterprises (SMEs) Supply Chains'- A SCRM-AHP model", *International Journal of Agile Systems and Management*, Vol. X, No. Y, pp.xxx–xxx. (Accepted and in production).

REFERENCES

Abdel-Basset, M., Gunasekaran, M., Mohamed, M., & Chilamkurti, N. (2019), "A framework for risk assessment, management and evaluation: Economic tool for quantifying risks in supply chain", *Future Generation Computer Systems*, *90*, 489-502.

Alkhalidi, A., Tahat, S., Smadi, M., Migdady, B., & Kaylani, H. (2020), "Risk assessment using the analytic hierarchy process while planning and prior to constructing wind projects in Jordan", *Wind Engineering*, *44*(3), 282-293.

Alora, A., & Barua, M. K. (2019), "An integrated structural modelling and MICMAC analysis for supply chain disruption risk classification and prioritisation in India", *International Journal of Value Chain Management*, *10*(1), 1-25.

Austin, L. M., & Burns, J. R. (1985), Management science: An aid for managerial decision making, Macmillan Publishing Company.

Avelar-Sosa, L., García-Alcaraz, J. L., & Castrellón-Torres, J. P. (2014), "The effects of some risk factors in the supply chains performance: a case of study", *Journal of applied research and technology*, *12*(5), 958-968.

Barnes, P., & Oloruntoba, R. (2005), "Assurance of security in maritime supply chains: Conceptual issues of vulnerability and crisis management", *Journal of International Management*, *11*(4), 519-540.

Barroso, A. P., Machado, V. H., Carvalho, H., & Machado, V. C. (2015), "Quantifying the supply chain resilience", *Applications of contemporary management approaches in supply chains*, 13-38.

Beamon, B. M. (1998), "Supply chain design and analysis: Models and methods", *International journal of production economics*, *55*(3), 281-294.

Bernstein, P. L., & Bernstein, P. L. (1996), *Against the gods: The remarkable story of risk*, 1269-1275, New York: Wiley.

Blackhurst, J. V., Scheibe, K. P., & Johnson, D. J. (2008), "Supplier risk assessment and monitoring for the automotive industry", *International Journal of Physical Distribution & Logistics Management*. 38 (2), 143-165.

Byrne, P. M. (2007), "Impact and ubiquity: two reasons to proactively manage risk", *Logistics Management*, *46*(4), 24-25.

Cagliano, A. C., De Marco, A., Grimaldi, S., & Rafele, C. (2012), "An integrated approach to supply chain risk analysis", *Journal of risk research*, 15(7), 817-840.

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.

Chand, M., Raj, T. and Shankar, R. (2015a), "Weighted-ISM technique for analysing the competitiveness of uncertainty and risk measures in supply chain', *Int. J. Logistics Systems and Management*, 21(2), 181–198.

Chand, M., Raj, T. and Shankar, R. (2015b), 'A comparative study of multi criteria decision making approaches for risks assessment in supply chain', *Int. J. Business Information Systems*, 18(1), 67–84.

Chand, M., Raj, T., Shankar, R., & Agarwal, A. (2017), "Select the best supply chain by risk analysis for Indian industries environment using MCDM approaches", *Benchmarking: An International Journal*, 24(5), 1400-1413.

Charkhab, H. K., Eslami, S. R., & Dehnavi, H. D. (2014), "Linking risk management practices and strategies to performance: Case study: Ceramic and tiles industry", *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(2), 417-428.

Chen, J., Sohal, A.S. and Prajogo, D.I. (2016), "Supply risk mitigation: a multi-theoretical perspective", *Production Planning and Control*, 27(10), 853-863

Chopra, S., & Sodhi, M. S. (2004), "Managing risk to avoid supply-chain breakdown", *MIT Sloan Management Review*, 46(1), 53–61.

Chowdhury, N. A., Ali, S. M., Mahtab, Z., Rahman, T., Kabir, G., & Paul, S. K. (2019), "A structural model for investigating the driving and dependence power of supply chain risks in the readymade garment industry", *Journal of Retailing and Consumer Services*, 51, 102-113.

Christopher, M. (2000), "The agile supply chain: competing in volatile markets", *Industrial marketing management*, 29(1), 37-44.

Christopher, M. and Lee, H. (2004), "Mitigating supply chain risk through improved confidence", *International Journal of Physical Distribution & Logistics Management*, 34(5), 388-96.

Christopher, M. and Peck, H., (2004), "Building the resilient Supply Chain", *International Journal of Logistics Management,* 15 (2), 1–13.

Colicchia, C., Dallari, F., & Melacini, M. (2010), "Increasing supply chain resilience in a global sourcing context", *Production planning & control*, *21*(7), 680-694.

Cucchiella, F. and Gastaldi, M. (2006), "Risk management in supply chain: a real option approach", *Journal of Manufacturing Technology Management*, 17(6), 700-720.

Deane, J.K., Ragsdale, C.T., Rakes, T.R., Rees, L.P. (2009), "Managing supply chain risk and disruption from IT security incidents", *Operations Management Research* 2 (1-4), 4-12.

Debnath, M.R. and Shankar, R. (2012), "Improving service quality in technical education: use of interpretive structural modeling", *Quality Assurance in Education*, 20(4), 387–407.

Diabat, A., Govindan, K. and Panicker, V. (2012), "Supply chain risk management and its mitigation in a food industry", *International Journal of Production Research*, 50(11), 3039-3050.

Digalwar, A.K. and Giridhar, G. (2015),"Interpretive structural modeling approach for development of electric vehicle market in India", *Procedia CIRP*, 26, 40–45.

Doreen Diehl & Stefan Spinler (2013), "Defining a common ground for supply chain risk management – a case study in the fast-moving consumer goods industry", *International Journal of Logistics Research and Applications*, 16(4), 311-327.

DuHadway, S., Carnovale, S., & Hazen, B. (2019), "Understanding risk management for intentional supply chain disruptions: Risk detection, risk mitigation, and risk recovery", *Annals of Operations Research*, 283(1), 179-198.

Faisal, M. N. (2009), "Prioritization of risks in supply chains", In *Managing supply chain risk and vulnerability*, 41-66, Springer, London.

Faisal, M. N. (2013),"Managing risk in small and medium enterprises (SMEs) supply chains' using quality function deployment (QFD) approach", *International Journal of Operations Research and Information Systems (IJORIS)*, *4*(1), 64-83.

Faisal, M. N., Banwet, D.K. and Shankar, R. (2006a), "Mapping supply chains on risk and customer sensitivity dimensions", *Industrial Management & Data Systems*, 106(6), 878-895.

Faisal, M. N., Banwet, D.K. and Shankar, R. (2006b), "Supply chain risk mitigation: modeling the enablers", *Business Process Management Journal*, 12(4), 535-552.

Faisal, M. N., D. K. Banwet & Ravi Shankar (2007a), "Management of Risk in Supply Chains: SCOR Approach and Analytic Network Process", *Supply Chain Forum: An International Journal*, 8(2), 66-79.

Faisal, M.N. (2016), "Assessment of supply chain risks susceptibility in SMEs using digraph and matrix methods", *Int. J. Industrial and Systems Engineering*, 24(4), 441–468.

Finch, P. (2004), "Supply chain risk management", *Supply Chain Management: An International Journal*, 9(2), 183-196.

Gaudenzi, B. and Borghesi, A. (2006), "Managing risks in the supply chain using the AHP method", *The International Journal of Logistics Management*, 17(1), 114–136.

Gautam, A., Prakash, S. and Soni, U. (2018), "Supply chain risk management and quality: a case study and analysis of Indian automotive industry", *International Journal of Intelligent Enterprise*, 5(1-2), 194-212.

Guesgen, H.W., Albrecht, J. (2000), "Imprecise reasoning in geographic information systems", *Fuzzy Sets and Systems*, 113, 121–131.

India (2020), "The Gazette of India." New Delhi: Published by Authority, No. 1532.

Ghadge, A., Dani, S., Chester, M. and Kalawsky, R. (2013), "A systems approach for modelling supply chain risks", *Supply Chain Management: An International Journal*, 18(5), 523–538.

Giannakis, M., & Papadopoulos, T. (2016), "Supply chain sustainability: A risk management approach", *International Journal of Production Economics*, 171, 455-470.

Goh, M., Joseph, Y.S. L. and Meng, F. (2007), "A Stochastic model for risk management in global supply chain networks", *European Journal of Operational Research*, 182(1), 164-173.

Hachicha, W. and Elmsalmi, M. (2014), "An integrated approach based-structural modeling for risk prioritization in supply network management", *Journal of Risk Research*, 17(10), 1301-1324.

Hallikas, J., Karvonen, I., Pulkkinen, U., Virolainen, V.M. and Tuominen, M. (2004), "Risk management processes in supplier networks", *International Journal of Production Economics*, 90(1), 47-58.

Harland, C., Brenchley, R. and Walker, H. (2003), "Risk in supply networks", *Journal of Purchasing and Supply Management*, 9(2), 51-62.

Ho, W., Zheng, T., Yildiz, H. and Talluri, S. (2015), "Supply chain risk management: a literature review", *International Journal of Production Research*, 53(16), 5031-5069

Jajja, M. S. S., Chatha, K. A., & Farooq, S. (2018), "Impact of supply chain risk on agility performance: Mediating role of supply chain integration", *International Journal of Production Economics*, 205, 118-138.

Jharkharia, S. and Shankar, R. (2004), "IT enablement of supply chains: modeling the enablers", *International Journal of Productivity and Performance Management*, 53(8), 700-712.

Jones, Thomas and Daniel W. Riley (1985), "Using Inventory for Competitive Advantage through Supply Chain Management", *International Journal of Physical Distribution and Materials Management*, 15(5), 16-26.

Jüttner, U., Peck, H., & Christopher, M. (2003), "Supply chain risk management: Outlining an agenda for future research", *International Journal of Logistics: Research and Applications*, 6(4), 197– 210.

Kauppi, K., Longoni, A., Caniato, F. and Kuula, M. (2016), "Managing country disruption risks and improving operational performance: risk management along integrated supply chains", *International Journal of Production Economics*, 182(2016), 484-495.

Kern, D., Moser, R., Hartmann, E. and Moder, M. (2012), "Supply risk management: model development and empirical analysis", *International Journal of Physical Distribution and Logistics Management*, 42(1), 60–82.

Kersten, W., Böger, M., Hohrath, P. and Späth, H. (2006), “Supply chain risk management: development of a theoretical and empirical framework”, Managing Risks in Supply Chains, pp. 3–17, Erich Schmidt Verlag GmbH & Co., Berlin.

Kilubi, I. and Rogers, H. (2018), "Bridging the gap between supply chain risk management and strategic technology partnering capabilities: insights from social capital theory", *Supply Chain Management*, 23(4), 278-292.

Kumar, R., K. Singh, R. and Shankar, R. (2014), "Strategy development by Indian SMEs for improving coordination in supply chain: An empirical study", *Competitiveness Review*, 24(5), 414-432.

Lavastre, O., A. Gunasekaran, and A. Spalanzani. (2012), “Supply Chain Risk Management in French Companies”, *Decision Support Systems* 52 (4): 828–838.

Li, X., & Barnes, I. (2008), “Proactive supply risk management methods for building a robust supply selection process when sourcing from emerging markets”, *Strategic Outsourcing: An International Journal*, 1(3), 252-267.

Lin, C.T., Chiu, H. and Chu, P.Y. (2006a), “Agility index in the supply chain”, *International Journal of Production Economics*, 100(2), 285-299.

Lin, C.T., Chiu, H. and Tseng, Y.H. (2006b), “Agility evaluation using fuzzy logic”, *International Journal of Production Economics*, 101(2), 353-368.

Malone, D.W. (1975), “An introduction to the application of interpretive structural modeling”, *Proceedings of the IEEE*, 63(3), 397–404.

Mandal, A. and Deshmukh, S.G. (1994), “Vendor selection using interpretive structural modelling (ISM)”, *International Journal of Operations and Production Management*, 14(6), 52–59.

Mangla, S. K., Kumar, P., & Barua, M. K. (2015), “Prioritizing the responses to manage risks in green supply chain: An Indian plastic manufacturer perspective”, *Sustainable Production and Consumption,* 1, 67-86.

Manuj, I. and Mentzer, J. (2008a), “Global supply chain risk management strategies”, *International Journal of Physical Distribution & Logistics Management*, 38(3), 192-223.

Mason-Jones, R., & Towill, D. R. (1998), “Shrinking the supply chain uncertainty circle”, *IOM control*, 24(7), 17-22.

Micheli, G. J., Mogre, R., & Perego, A. (2014), “How to choose mitigation measures for supply chain risks”, *International Journal of Production Research*, 52(1), 117-129.

Miller, K. D. (1992), “A framework for integrated risk management in international business”, *Journal of international business studies*, *23*(2), 311-331.

Millet, I., & Wedley, W. C. (2002), “Modelling risk and uncertainty with the analytic hierarchy process”, *Journal of Multi-Criteria Decision Analysis*, 11(2), 97-107.

Mohammaddust, F., Rezapour, S., Farahani, R.Z., Mofidfar, M. and Hill, A. (2017), "Developing lean and responsive supply chains: a robust model for alternative risk mitigation strategies in supply chain designs", *International Journal of Production Economics*, 183, 632–653.

Moktadir, M.A., Ali, S.M., Mangla, S.K., Sharmy, T.A., Luthra, S., Mishra, N. and Garza-Reyes, J.A. (2018), "Decision modeling of risks in pharmaceutical supply chains", *Industrial Management and Data Systems*, 118(7), 1388-1412.

Norrman, A. and Jansson, U. (2004), "Ericsson's proactive supply chain risk management after a serious sub-supplier incident", *International Journal of Physical Distribution and Logistics Management,* 5(5), 434-456.

Novaes, A. G., & Souza, J. C. (2005), "A real options approach to a classical capacity expansion problem", *Pesquisa Operacional*, 25(2), 159-181.

Ojha, R., K. Vij, A. and Vrat, P. (2014), "Manufacturing excellence and its critical factors: An interpretive structural methodology application", *Journal of Advances in Management Research*, 11(3), 312–332.

Olson, D. L., & Wu, D. (2011), "Risk management models for supply chain: a scenario analysis of outsourcing to China", *Supply Chain Management: An International Journal*, 16(6), 401-408.

Pfohl, H.C., Gallus, P. and Thomas, D. (2011), "Interpretive structural modeling of supply chain risks", *International Journal of Physical Distribution and Logistics Management*, 41(9), 839–859.

Ponomarov, S.Y. & Holcomb, M.C. (2009), "Understanding the concept of supply chain resilience", *International Journal of Logistics Management*, 20(1), 124–143.

Kumar Pradhan, S. and Routroy, S. (2014), "Analyzing the supply chain risk issues for an Indian manufacturing company", *Journal of Advances in Management Research*, 11(2), 144-162.

Prakash, S., Soni, G., & Rathore, A. P. S. (2015), "A grey based approach for assessment of risk associated with facility location in global supply chain", *Grey Systems: Theory and Application,* 5(3), 419-436.

Prasanna Venkatesan, S. and Kumanan, S. (2012), "Supply chain risk prioritisation using a hybrid AHP and PROMETHEE approach", Int. J. *Services and Operations Management*, 13(1), 19–41.

Prater, E., Biehl, M., & Smith, M. A. (2001),"International supply chain agility-Tradeoffs between flexibility and uncertainty", *International journal of operations & production management,* 21(5-6), 823-839.

Qazi, A., Quigley, J., Dickson, A., & Ekici, Ş. Ö. (2017), "Exploring dependency based probabilistic supply chain risk measures for prioritising interdependent risks and strategies", *European Journal of Operational Research*, 259(1), 189-204.

Radivojević, G., & Gajović, V. (2014), "Supply chain risk modeling by AHP and Fuzzy AHP methods", *Journal of Risk Research,* 17(3), 337-352.

Rao, S., & Goldsby, T. J. (2009), "Supply chain risks: A review and typology", International *Journal of Logistics Management,* 20(1), 97–123.

Ravi, V. and Shankar, R. (2005), "Analysis of interactions among the barriers of reverse logistics", *Technological Forecasting and Social Change*, 72(8), 1011-1029.

Ritchie, B., & Brindley, C. (2007), "Supply chain risk management and performance" *International Journal of Operations & Production Management,* 27(3), 303-322.

Rogers, H., Srivastava, M., Pawar, K. S., & Shah, J. (2016), "Supply chain risk management in India–practical insights", *International Journal of Logistics Research and Applications*, 19(4), 278-299.

Rostamzadeh, R., Ghorabaee, M. K., Govindan, K., Esmaeili, A., & Nobar, H. B. K. (2018), "Evaluation of sustainable supply chain risk management using an integrated fuzzy TOPSIS-CRITIC approach", *Journal of Cleaner Production*, 175, 651-669.

Saaty, R. W. (2003), "Decision Making in Complex Environments: The Analytical Hierarchy Process (AHP) for Decision Making and the Analytic Network Process (ANP) for Decision Making with Dependence and Feedback", Pittsburgh, PA: Creative Decisions Foundation.

Saaty, T. (1996), Decision Making with Dependence and Feedback: The Analytic Network Process, Pittsburgh, PA: RWS Publications.

Saaty, T. L. (1990), "How to make a decision: the analytic hierarchy process", *European journal of operational research*, 48(1), 9-26.

Sage, A. (1977), Interpretive Structural Modeling: methodology for Large-Scale Systems, McGraw-Hill, 91-164.

Samvedi, A., Jain, V., & Chan, F. T. (2013), "Quantifying risks in a supply chain through integration of fuzzy AHP and fuzzy TOPSIS", *International Journal of Production Research*, 51(8), 2433-2442.

Sawik, T. (2011), "Selection of a dynamic supply portfolio in make-to-order environment with risks", *Computers & Operations Research*, 38(4), 782–796

Schoenherr, T., Tummala, V.M.R., Harrison, T.P., (2008), "Assessing supply chain risks with the analytic hierarchy process: providing decision support for the offshoring decision by a U.S. manufacturing company", *Journal of Purchasing and Supply Management,* 14 (2), 100–111.

Sharma, S.K. and Bhat, A. (2012), "Identification and assessment of supply chain risk: development of AHP model for supply chain risk prioritization", *Int. J. Agile Systems and Management*, 5(4), 350–369.

Sharma, SK & Bhat, A (2014), "Supply chain risks: development of model and empirical evidence", *International Journal of Applied Management Science*, 6(1).

Shenoi, V. V., Dath, T. S., & Rajendran, C. (2016), "Supply chain risk management in the Indian manufacturing context: a conceptual framework", *International Journal of Logistics Systems and Management*, 25(3), 313-335.

Shenoi, V. V., Dath, T. S., Rajendran, C., & Shahabudeen, P. (2018), "Strategic action grids: a study on supply chain risk management in manufacturing industries in India", *Benchmarking: An International Journal*, 25(8), 3045-3061.

Singh, R. K., & Sharma, M. K. (2014), "Prioritising the alternatives for flexibility in supply chains", *Production Planning & Control*, 25(2), 176-192.

Sofyalıoğlu, Ç., & Kartal, B. (2012), "The selection of global supply chain risk management strategies by using fuzzy analytical hierarchy process–a case from Turkey", *Procedia-Social and Behavioral Sciences*, 58, 1448-1457.

Soni, G., & Kodali, R. (2013), "A decision framework for assessment of risk associated with global supply chain", *Journal of Modelling in Management*, 8(1), 25-53.

Sreedevi, R., & Saranga, H. (2017), "Uncertainty and supply chain risk: The moderating role of supply chain flexibility in risk mitigation", *International Journal of Production Economics*, 193, 332-342.

Standard, B. (1991) BS 4778: Glossary of Terms Used In Quality Assurance (Including Reliability and Maintainability), British Standards Institution, London.

Swafford, P.M., Ghosh, S. and Murthy, N. (2006), "The antecedents of supply chain agility of a firm: scale development and model testing", *Journal of Operations Management*, 24, 170-188.

Swink, M., and G. Zsidisin. 2006, "On the Benefits and Risks of Focused Commitment to Suppliers", *International Journal of Production Research*, 44 (20): 4223–4240.

Tang, C. S. (2006), "Perspectives in supply chain risk management", *International Journal of Production Economics*, 103(2), 451–488.

Tang, C., & Tomlin, B. (2008), "The power of flexibility for mitigating supply chain risks", *International journal of production economics*, 116(1), 12-27.

Tang, O., & Musa, S. N. (2011), "Identifying risk issues and research advancements in supply chain risk management", *International journal of production economics*, 133(1), 25-34.

Tarei, P. K., Thakkar, J. J., & Nag, B. (2020), "Benchmarking the relationship between supply chain risk mitigation strategies and practices: an integrated approach", *Benchmarking: An International Journal*, 27(5), 1683-1715.

Thun, J., and D. Hoenig. 2011, “An Empirical Analysis of Supply Chain Risk Management in the German Automotive Industry”, *International Journal of Production Economics,* 13(1), 242–249.

Trkman, P., and K. McCormack. 2009, “Supply Chain Risk in Turbulent Environments – A Conceptual Model for Managing Supply Chain Network Risk”, *International Journal of Production Economic,* 119 (2), 247–258.

Tse, Y. K., & Tan, K. H. (2010), "Quality risk in global supply network”, *In 2010 8th International Conference on Supply Chain Management and Information,* pp. 1-7, IEEE.

Tseng, Y.H. and Lin, C.T. (2011), “Enhancing enterprise agility by deploying agile drivers, capabilities and providers”, *Information Sciences,* 181(17), 3693-3708.

Tummala, R. and Schoenherr, T. (2011), “Assessing and managing risks using the supply chain risk management process (SCRMP)”, *Supply Chain Management: An International Journal,* 16(6), 474–483.

Tuncel, G., & Alpan, G. (2010), “Risk assessment and management for supply chain networks: A case study”, *Computers in industry,* 61(3), 250-259.

Venkatesh, V. G., Rathi, S., & Patwa, S. (2015), “Analysis on supply chain risks in Indian apparel retail chains and proposal of risk prioritization model using Interpretive structural modeling”, *Journal of Retailing and Consumer Services,* 26, 153-167.

Vinodh, S. and Devadasan, S.R. (2011), “Twenty criteria based agility assessment using fuzzy logic approach”, *International Journal of Advanced Manufacturing Technology,* 54(9-12), 1219-1231

Vinodh, S., Devadasan, S.R., Vimal, K.E.K. and Kumar, D. (2013), “Design of agile supply chain assessment model and its case study in an Indian automotive components manufacturing organization”, *Journal of Manufacturing Systems,* 32(4), 620- 631.

Wagner, S. and Bode, C. (2006), “An empirical investigation into supply chain vulnerability”, *Journal of Purchasing & Supply Management,* 12(6), 301-12.

Wagner, S. M., & Neshat, N. (2010), “Assessing the vulnerability of supply chains using graph theory”, *International Journal of Production Economics,* 126(1), 121-129.

Wang, X., Tiwari, P., & Chen, X. (2017), “Communicating supply chain risks and mitigation strategies: a comprehensive framework”, *Production Planning & Control,* 28(13), 1023-1036.

Warfield, J.N. (1974), “Developing interconnection matrices in structural modeling”, *IEEE Transactions on Systems, Man, and Cybernetics,* SMC-4(1), 81-87.

Warfield, J.N. (1976), “Implication structures for system interconnection matrices”, *IEEE Transactions on Systems, Man, and Cybernetics,* SMC-6(1), 18-24.

Wieland, A., & Wallenburg, C. M. (2012), "Dealing with supply chain risks", *International Journal of Physical Distribution & Logistics Management*, 42(10), 887-905.

Saaty, T.L. (1980), "The Analytic Hierarchy Process", *McGraw-Hill*, New York, *Agricultural Economics Review, 70.*

Wu, D., and D. Olson. 2008, "Supply Chain Risk, Simulation, and Vendor Selection", *International Journal of Production Economics*, 114 (2), 646–655.

Wu, T., Blackhurst, J., & Chidambaram, V. (2006), "A model for inbound supply risk analysis", *Computers in industry*, 57(4), 350-365.

Zadeh, L. A. (1965), "Information and control", *Fuzzy sets*, 8(3), 338-353.

Zineb, E., Brahim, B., & Houdaifa, A. (2017), "The impact of SCRM strategies on supply chain resilience: A quantitative study in the Moroccan manufacturing industry", *International Journal of Supply Chain Management*, 6(4), 70-75.

Zsidisin, G.A. (2003), "A grounded definition of supply risk", *Journal of Purchasing and Supply Management*, 9(5-6), 217–224.

Zsidisin, GA, Ellram, LM, Carter, JR & Cavinato, JL 2004, "An analysis of supply risk assessment techniques", *International Journal of Physical Distribution & Logistics Management*, 34(5), 397-413.