No	Full citation	SCV Dimension(s)	Study type/design	Technique	Industry	Outcome
1	Vaishnavi et al., 2020 [69]	AG	Quantitative	Fuzzy Logic	Healthcare	Assessed agility readiness in healthcare using fuzzy logic and produced a readiness score/index and key improvement criteria.
2	Susanty et al., 2024 [67]	AG	Quantitative	Survey	Telecommunications	Survey-based analysis of leadership impact and mediators on organizational agility in the telecom context.
3	Tseng et al., 2019 [113]	SUS	Quantitative	Fuzzy synthetic evaluation (FSE) + DEMATEL	Textile	Developed a hierarchical decision model and prioritized criteria influencing sustainable supply chain capabilities (top criteria identified).
4	Shayganmehr et al., 2021 [115]	SUS	Quantitative (survey + modelling)	Survey + EFA + fuzzy expert system	Textile (Iran)	Identified sustainability constructs and computed readiness scores via fuzzy expert system; applied to an Iranian textile company (e.g., transparency highest; environmental issues lowest).
5	Al-Zabidi et al., 2021 [110]	AG, SUS	Mixed methods	Fuzzy Logic	Dairy manufacturing	Assessed sustainable supply chain agility and highlighted capability gaps and priority improvement areas for a manufacturing case.
6	Menon et al., 2022 [114]	SUS	Modelling study using expert input (structural modelling)	Total Interpretive Structural Modeling (TISM) + MICMAC	Higher education institutions (HEIs)	Structured and ranked key sustainability enablers for HEIs; identified dominant driving enablers.

7	Lassnig et al., 2021 [81]	DIG	Quantitative	Questionnaire	SMEs	Developed a digital readiness check for Industry 4.0 considering supply chain aspects and company size, producing readiness profiles.
8	Tripathi et al., 2023 [54]	DIG	Quantitative (secondary data + policy analysis)	Macro-factor readiness scoring (9 factors) using indices/data (2010+) and policy literature	National supply chain ecosystem (India)	Estimated India's Industry 4.0 supply chain ecosystem readiness and highlighted leading vs. lagging macro factors (readiness score reported).
9	Kayikci et al., 2022 [52]	SUS	Conceptual framework + case study	Readiness & maturity model (index-based) + multi-stakeholder case study	SMEs (Textile, Turkey)	Assessed SMEs' smart circular supply chain readiness and maturity; produced readiness/maturity indices highlighting transition gaps to I4.0 and circularity.
10	Echefaj et al., 2024 [56]	RES	Quantitative	AHP, G-TOPSIS	Manufacturing	Prioritized resilience capabilities and practices during disruption using AHP and G-TOPSIS.
11	Demir et al., 2023 [85]	SUS, DIG	Model proposal + case study	S3RM readiness & maturity assessment model (TBL-based index) + case study	Automotive	Developed and applied S3RM to compute smartness/sustainability readiness–maturity index and derive SWOT-style insights for supply chain improvement.
12	Sreenivasan et al., 2023 [108]	SUS	Quantitative	TISM, MICMAC	Construction	Modeled lean-sustainability readiness relationships in start-ups (COVID-19 era) using TISM/MICMAC to identify key drivers and dependencies.

13	Rahiminezhad Galankashi et al., 2019 [46]	AG	Quantitative	AHP	Manufacturing	Assessed and ranked agility criteria/practices in manufacturing firms using AHP.
14	Masengu et al., 2024 [89]	SUS	Modelling study using expert input (structural modelling)	Total Interpretive Structural Modeling (TISM) + MICMAC	Higher education institutions (HEIs)	Structured and ranked key sustainability enablers for HEIs; identified dominant driving enablers.
15	Rajesh et al., 2019 [55]	RES	Quantitative	Resilient Fuzzy Index (RFI) Performance Fuzzy Index (PFI)	Manufacturing	Quantified resilience level in manufacturing supply chains using fuzzy indices (RFI/PFI) and identified improvement priorities.
16	Mahmud et al., 2023 [48]	RES, SUS	Conceptual	Fuzzy DEMATEL	healthcare and pharmaceutical	Prioritized strategies for a sustainable and resilient vaccine supply chain using Fuzzy DEMATEL.
17	Khan et al., 2021 [79]	DIG	Qualitative	Expert interviews + fuzzy logic (knowledge-based expert system)	Manufacturing	Developed a knowledge-based expert system to evaluate digital supply chain readiness and produce a readiness rating based on expert input.
18	Dewi et al., 2024 [4]	AG	Quantitative (instrument development)	Survey (n=405) + EFA/CFA + SEM	Motorcycle after-sales service (Indonesia)	Developed and validated a construct and instrument to measure PSS supply chain agility readiness (six capability constructs identified).
19	Kazancoglu et al., 2024 [99]	RES	Quantitative	graph theory matrix (modeling techniques)	Food	Evaluated food supply chain resilience during COVID-19 using graph theory matrix modelling and identified critical resilience drivers.

20	Patil et al., 2023 [51]	DIG, SUS	Quantitative	Fuzzy Best–Worst Method (F-BWM) with expert panel (n=6)	Cross-industry (sustainable SC / circular economy)	Identified and prioritized big data–Industry 4.0 readiness factors for sustainable/circular SCM; highlighted top infrastructure and circular-awareness factors.
21	Tran et al., 2021 [119]	SUS	Quantitative	Survey (n=310) + PLS-SEM	Handicraft	Examined critical factors (organizational behavior, stakeholder pressures, organizational readiness) affecting social sustainability practices adoption in Vietnamese handicraft organizations; found organizational behavior and readiness have direct impacts while stakeholder pressures are fully mediated.
22	Ghosh et al., 2023 [120]	SUS	Quantitative	Survey + statistical analysis	SMEs (developing countries)	Identified key readiness factors for circular economy practices adoption in SMEs of developing countries and examined their interrelationships.
23	Salama et al., 2025 [73]	AG	Quantitative	Questionnaire (n=55, 19 countries) + statistical analysis	Modular/Offsite Construction	Developed an agility assessment framework for modular and offsite construction using 48 attributes across metrics, drivers, enablers, and capabilities; identified key agility drivers and enablers including vendor partnership.

24	McDaid et al., 2024 [107]	SUS	Quantitative (empirical study)	BWM-FIS (Best-Worst Method + Fuzzy Inference System) with expert panel (n=34)	Dairy manufacturing	Developed and applied a hybrid BWM-FIS approach to measure circular supply chain readiness in Irish dairy industry; collected data from 34 professionals across 13 companies; found moderate readiness level for CSC implementation.
25	Yamin et al., 2021 [50]	RES	Quantitative	Survey (n=309) + PLS-SEM	Manufacturing (Saudi Arabia)	Identified drivers of supply chain resilience during COVID-19 using survey of 309 supply chain managers in Saudi Arabia; found supply chain intelligence, communication, leadership commitment, risk management orientation, and supply chain capability significantly impact resilience (R^2=54.8%).
26	Adobor et al., 2018 [101]	RES	Conceptual	Complex Adaptive Systems (CAS) framework + conceptual analysis	General SC	Developed a multidimensional framework of supply chain resilience using CAS perspective; identified three resilience types (engineering, ecological, evolutionary) linked to four phases of SCRES (readiness, response, recovery, growth/renewal).
27	Gruchmann et al., 2024 [8]	DIG, SUS	Mixed-method; survey of industry experts	Structural Equation Modeling (SEM)	Port logistics / maritime logistics (Oman ports)	Infrastructure, regulatory and technology readiness improve logistics competitiveness; e-HRM has mixed effects.

28	Chowdhury MMH et al., 2016 [27]	RES	Quantitative (survey + modelling)	Survey + PLS-SEM + qualitative field study	Apparel (Bangladesh)	Developed and validated hierarchical measurement model of SCRE with three dimensions: readiness, response, and recovery; identified antecedents (SCO, SCRMC, L&D); found SCRMC partially mediates SCO-SCRE relationship; applied to apparel supply chain in Bangladesh.
29	Obiri-Yeboah H et al., 2025 [36]	RES	Quantitative survey-based study	Maximum likelihood SEM (ML-SEM)	Multiple industries (Germany)	Identified parallel proactive and reactive resilience pathways; visibility and velocity are central drivers.
30	Alzarooni et al., 2025 [49]	DIG	Quantitative	ISM + DEMATEL with expert panel (n=17)	Service industry (UAE)	Identified and prioritized enablers for digital supply chain transformation in UAE service industry; found smart warehousing as most influential enabler; intelligence and real-time as operative enablers with strong driving and dependence power.
31	Thomas et al., 2024 [109]	SUS	Quantitative	TISM + MICMAC	Healthcare	Identified and categorized 10 lean sustainability readiness factors for healthcare using TISM-MICMAC; key drivers include operational flexibility, sustainability motivational factors, management commitment/leadership, and new system adoptability training.

32	Sreenivasan et al., 2024 [7]	AG	Quantitative	TISM + MICMAC	General SC	Identified 10 enablers for agile readiness in start-ups using TISM-MICMAC; found executive-level support as key factor; prioritized capability, experienced employees, market knowledge, environment agility, leadership and clear vision, and flexibility.
33	Gupta et al., 2021 [47]	DIG	Quantitative	ISM + DEMATEL + fuzzy MICMAC	General SC	Reported contributions related to enablers to supply chain performance on the basis of digitization technologies.
34	Deepu et al., 2021 [53]	DIG	Conceptual	Integrated systems model approach + DIKW hierarchy framework	General SC	Proposed a conceptual framework/model for conceptual framework for supply chain digitalization using integrated systems model approach and dikw hierarchy, defining key constructs and relationships to guide future empirical testing.
35	Thomas et al., 2023 [70]	AG, SUS	Quantitative	TISM + MICMAC	Healthcare	Reported contributions related to readiness for agile-sustainability in health-care organizations.
36	Tiwari et al., 2024 [74]	DIG	Quantitative	Survey + PLS-SEM	General SC	Reported contributions related to digitalization & covid-19: an institutional-contingency theoretic analysis of supply chain digitalization.

37	Piprani et al., 2020 [97]	RES	Quantitative	AHP	Textile	Reported contributions related to prioritizing resilient capability factors of dealing with supply chain disruptions: an analytical hierarchy process (ahp) application in the textile industry.
38	Gupta et al., 2019 [14]	AG, DIG	Quantitative	Survey + SEM	General SC	Reported contributions related to leveraging smart supply chain and information system agility for supply chain flexibility.
39	Mohammed et al., 2023 [98]	RES	Quantitative	Survey + SEM	General SC	Reported contributions related to covid-19 pandemic disruption: a matter of building companies' internal and external resilience.
40	Hendiani et al., 2022 [111]	SUS	Quantitative (modelling)	Fuzzy-based sustainability indicator development	General SC	Reported contributions related to a new sustainability indicator for supply chains: theoretical and practical contribution towards sustainable operations.
41	Tseng et al., 2024 [121]	SUS	Quantitative (modelling)	Fuzzy DEMATEL + hierarchical modelling	Seafood processing	Developed a quantitative model related to modelling hierarchical circular supply chain management enablers in the seafood processing industry in vietnam under uncertainties and derived analytical insights from scenario/case analysis.

42	Habibi et al., 2023 [102]	RES	Quantitative (modelling)	Network resilience modelling + disruption propagation analysis	General SC	Reported contributions related to evaluating supply chain network resilience considering disruption propagation.
43	Yu et al., 2024 [75]	DIG	Quantitative	Survey + SEM	General SC	Reported contributions related to). examining the effects of digital supply chain practices on supply chain viability and operational performance: a practice-based view.
44	Sangwan et al., 2018 [117]	SUS	Quantitative	AHP + fuzzy methods	SMEs (cross-industry)	Reported contributions related to sustainability assessment in manufacturing organizations. benchmarking.
45	Yadav et al., 2022 [39]	RES	Quantitative (modelling)	ISM + MICMAC	General SC	Developed a quantitative model to evaluate resilience under disruption propagation and derived implications for mitigation and recovery.
46	Mohammed et al., 2023 [98]	RES	Quantitative	Survey + SEM	General SC	Reported contributions related to covid-19 pandemic disruption: a matter of building companies' internal and external resilience.
47	Jiang et al., 2024 [57]	RES	Quantitative	ISM	General SC	Reported contributions related to resilience of green building supply chain: capabilities, risks and influence mechanism.

48	Cantele et al., 2023 [132]	AG, SUS	Quantitative	Configurational analysis (fsQCA)	General SC	Analyzed configurations of sustainable supply chain management practices associated with high sustainability performance and supply chain agility, showing multiple (equifinal) practice bundles that lead to superior outcomes.
49	Kalantari et al., 2018 [3]	AG	Case study	ISM, Fuzzy methods	SMEs (cross-industry)	Applied an assessment/modeling approach to readiness assessment of leagility supply chain based on fuzzy cognitive maps and interpretive structural modelling: a case study in a case setting, identifying key gaps and improvement priorities.
50	Rocha et al., 2025 [88]	DIG	Quantitative empirical study	Content analysis of interviews and observations	Large manusfacturing firms	Introduces a multidimensional building-block model for digital transformation readiness; Frames digital transformation as a predominantly human-driven change rather than a purely technological shift; Underscores the importance of government support as a critical external enabler of successful digitalization
51	Pulkkinen et al., 2025 [82]	DIG	Qualitative interview-based study	Thematic analysis of semi-structured interviews	Public sector – municipal technical services (Finland)	Identified organizational resource and creative tension mechanisms enabling digitalization readiness.

52	Padovano et al., 2025 [10]	RES	Quantitative	Survey + empirical analysis	General SC	Quantitatively examined towards resilient and viable supply chains: a multidimensional model and empirical analysis and reported key determinants and implications for practice.
53	Liu et al., 2022 [12]	VSC	Quantitative (modelling)	Stochastic optimization + mathematical modelling	General SC	Developed a quantitative model to evaluate or maintain supply chain viability under disruptions and tested it via scenarios/case analysis.
54	Kumar et al., 2024 [13]	DIG	Quantitative	Survey + SEM	General SC	Reported contributions related to developing supply chain capabilities through digitalization and viability for controlling the ripple effect.
55	Dey et al., 2024 [15]	DIG	Quantitative	Survey + AI-based modelling	Manufacturing	Reported contributions related to artificial intelligence-driven supply chain resilience in vietnamese manufacturing small- and medium-sized enterprises.
56	Ivanov et al., 2022 [17]	AG, RES, SUS	Quantitative (modelling)	Simulation modelling + scenario analysis	General SC	Developed a quantitative model to evaluate resilience under disruption propagation and derived implications for mitigation and recovery.

57	Ivanov et al., 2020 [18]	RES	Conceptual	Conceptual framework + viability analysis	General SC	Proposed a conceptual framework/model for viability of intertwined supply networks: extending the supply chain resilience angles towards survivability. a position paper motivated by covid-19 outbreak, defining key constructs and relationships to guide future empirical testing.
58	Ivanov et al., 2023 [22]	VSC	Conceptual	Conceptual framework + theory development	General SC	Reported contributions related to toward supply chain viability theory: from lessons learned through covid-19 pandemic to viable ecosystems.
59	Münch et al., 2023 [23]	RES	Case study	Multiple case study + qualitative analysis	General SC	Applied an assessment/modeling approach to transforming resilience in the context of a pandemic: results from a cross-industry case study exploring supply chain viability in a case setting, identifying key gaps and improvement priorities.
60	Ivanov et al., 2022 [28]	RES	Conceptual	Conceptual framework (AURA) development	General SC	Reported contributions related to lean resilience: aura (active usage of resilience assets) framework for post-covid-19 supply chain management.
61	Ivanov et al., 2023 [32]	RES, SUS	Conceptual	Conceptual framework + Industry 5.0 integration	General SC	Reported contributions related to the industry 5.0 framework: viability-based integration of the resilience, sustainability, and human-centricity perspectives.

62	Ruel et al., 2024 [33]	VSC	Quantitative	Survey + scale development + SEM	General SC	Reported contributions related to supply chain viability: conceptualization, measurement, and nomological validation.
63	Sardesai et al., 2023 [34]	VSC	Quantitative (modelling)	Process capability index modelling	General SC	Reported contributions related to maintaining viability by rapid supply chain adaptation using a process capability index.
64	Yin et al., 2021 [59]	VSC	Conceptual	Blockchain-enabled modelling	General SC	Reported contributions related to theoretical exploration of supply chain viability utilizing blockchain technology.
65	Lotfi et al., 2021 [58]	VSC	Quantitative (modelling)	Blockchain-enabled modelling	General SC	Reported contributions related to viable supply chain network design by considering blockchain technology and cryptocurrency.
66	Kumar et al., 2022 [60]	VSC	Quantitative (modelling)	System dynamics modelling + case study	Automotive (India)	Developed a quantitative model to evaluate or maintain supply chain viability under disruptions and tested it via scenarios/case analysis.
67	Liu et al., 2022 [61]	VSC	Quantitative (modelling)	Network dynamics modelling + simulation	General SC	Developed a quantitative model to evaluate or maintain supply chain viability under disruptions and tested it via scenarios/case analysis.
68	Sawik et al., 2023 [62]	VSC	Quantitative (modelling)	Stochastic optimization	General SC	Developed a quantitative model to evaluate or maintain supply chain viability under disruptions and tested it via scenarios/case analysis.

69	Misbauddin et al., 2023 [63]	VSC	Quantitative	Survey + PLS-SEM	Floriculture (Bangladesh)	Quantitatively examined exploring the antecedents of supply chain viability in a pandemic context: an empirical study on the commercial flower supply chain of an emerging economy and reported key determinants and implications for practice.
70	Dubey et al., 2018 [65]	AG	Quantitative	Survey + SEM	Automotive (India)	Quantitatively examined supply chain agility, adaptability, and alignment: empirical evidence from the indian auto components industry and reported key determinants and implications for practice.
71	Zahraee et al., 2018 [116]	SUS	Quantitative supplier survey	Partial Least Squares SEM (PLS-SEM)	Automotive supply chain (Iranian suppliers)	Environmental regulations and customer pressure drive supplier participation in green initiatives.
72	Sreenivasan et al., 2023 [68]	AG, DIG	Quantitative	TISM + MICMAC	SMEs (cross-industry)	Reported contributions related to assessment of factors influencing agility in start-ups industry 4.0.
73	Boubaker et al., 2023 [72]	AG	Quantitative (modelling)	Mathematical flow modelling + simulation	General SC	Developed a quantitative model related to a supply chain flow model to assess agility in supply chains and derived analytical insights from scenario/case analysis.

74	Wang et al., 2024 [71]	AG	Quantitative	Survey + SEM	General SC	Reported contributions related to supply chain agility as the antecedent to firm sustainability in the post covid-19.
75	Ghaleb et al., 2021 [76]	DIG	Quantitative	Survey + TOE framework + SEM	Healthcare	Reported contributions related to the assessment of big data adoption readiness with a technology–organization–environment framework: a perspective towards healthcare employees.
76	Lotfi et al., 2025 [77]	VSC	Quantitative (modelling)	Blockchain-enabled modelling	General SC	Reported contributions related to viable supply chain with vendor-managed inventory approach by considering blockchain, risk and robustness.
77	Min et al., 2019 [78]	RES	Conceptual	Blockchain-enabled modelling	General SC	Reported contributions related to blockchain technology for enhancing supply chain resilience.
78	Menhas et al., 2024 [83]	DIG	Quantitative	Survey + statistical analysis	Aerospace	Quantitatively examined assessing the readiness for industry 4.0 in pakistan's aerospace sector: an empirical analysis and reported key determinants and implications for practice.
79	Omrani et al., 2024 [86]	DIG	Quantitative	Survey + SEM	SMEs (cross-industry)	Reported contributions related to drivers of digital transformation in smes.

80	Oraini et al., 2024 [87]	DIG	Quantitative (modelling)	Blockchain-enabled modelling	SMEs (cross-industry)	Developed a quantitative model related to digital transformation readiness in large manufacturing firms: a building block model proposition and derived analytical insights from scenario/case analysis.
81	Kumar et al., 2017 [112]	SUS	Quantitative	AHP, Fuzzy methods	General SC	Reported contributions related to evaluating sustainable supply chain indicators using fuzzy ahp.
82	El Korchi et al., 2022 [103]	RES, SUS	Conceptual	Conceptual framework + COVID-19 case analysis	General SC	Reported contributions related to survivability, resilience and sustainability of supply chains: the covid-19 pandemic.
83	Ruel et al., 2023 [96]	RES	Quantitative	Survey + PLS-SEM	General SC	Quantitatively examined disaster readiness' influence on the impact of supply chain resilience and robustness on firms' financial performance: a covid-19 empirical investigation and reported key determinants and implications for practice.
84	Hosseini et al., 2022 [94]	RES	Quantitative (modelling)	Bayesian network	General SC	Developed a quantitative model to evaluate resilience under disruption propagation and derived implications for mitigation and recovery.

85	Wang et al., 2025 [91]	DIG	Quantitative	Survey + dynamic managerial capabilities analysis	Construction	Reported contributions related to digital transformation and organizational readiness: evidence from chinese construction smes with a dynamic managerial capabilities lens.
86	Masengu et al., 2024 [89]	DIG	Quantitative	Survey + e-readiness assessment	Ports/Logistics	Reported contributions related to e-readiness of the sultanate of oman’s ports in improving logistics and supply chain global competitiveness.