

Achieving sustainability in global sourcing: towards a conceptual framework

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Table 1 Category selection

Categories and Constructs	Description
Antecedents	Antecedents are the preceding factors of practices and are responsible for causing the performance effects. Internal drivers are described here as organizational factors, and the external drivers include regulation, customers, competition, and society (Walker et al., 2008; Haake and Seuring, 2009; Ageron et al. 2012).
1) Internal drivers	
2) External drivers	
GS practices	
3) Internal integration (horizontal)	Internal integration (horizontal level) is mentioned as the integration or collaboration across horizontal functions within a firm (Dooley, 2002; Hendrick, 2009; Jia et al., 2017).
4) Internal integration (hierarchical)	Internal integration (hierarchical level) refers to integration through the hierarchical purchasing levels within a firm, such as corporate, plant, business unit, and purchasing office (Dooley, 2002; Hendrick, 2009; Jia et al., 2017).
5) External integration	External integration in GS refers to integration or collaboration with suppliers (Jia et al., 2017) and the different governance mechanisms to draw suppliers into sustainability-related practices (Gimenez and Tachizawa, 2012).
6) Supply internationalization	Supply internationalization indicates the level or degree of global sourcing, which is measured by the quantity, complexity and importance of the items sourced internationally (Arnold, 1999; Jia et al., 2017).
7) Control & Coordination	Coordination and control mechanisms refer to the degree of managing the interdependence between tasks and actors (coordination), the degree of ensuring that each unit contributes to the execution of organizational goals (control), as well as the related information and communication technology capabilities (ICT) of firms that implement GS practices (Jia et al., 2017).
8) Specialization	Specialization refers to the division of labour and tasks designated into the different levels of the purchasing organization within the company (Jia et al., 2017).
9) Allocation of decision-making power	Allocation of decision-making power is mentioned as the distribution of decision-making responsibilities to each level of the purchasing organization within a firm (Jia et al., 2017).
TBL performances	TBL performance is defined as sustainable performance in economic, environmental, and social terms (Elkington, 1998; Kleindorfer et al., 2005; Carter and Rogers, 2008; Hollos et al., 2012).
10) Environmental	
11) Social	
12) Economic	

Table 2 Mapping GS practices against ROT dimensions

Approach	GS Practices	References
Orchestration breadth	Specialization (setting up new functions)	Margnan et al. (2002)
	Internal integration with other functional departments (horizontal level)	Zsidisin and Hendrick (1998); Oehmen et al. (2010); Leppelt et al. (2013);
Orchestration depth	Internal integration with different hierarchical levels (allocation of decision-making power; control mechanisms; coordination mechanisms)	Park and Dickson (2008); Ehgott et al., (2013); Hoof and Lyon (2013); Andersen and Larsen (2009); Dabhilkar et al. (2016)
Orchestration evolution	Supply internationalization	Gualandris et al. (2014); Aragon-Correa and Sharma (2003); Dabhilkar et al. (2016)

Table 3 Journals/articles distribution

Area/Journal	No. of papers
Production and Operations Management	38
Supply Chain Management	7
Journal of Operations Management	5
International Journal of Operations & Production Management	4
International Journal of Production Economics	4
International Journal of Production Research	3
Journal of Supply Chain Management	3
International Journal of Physical Distribution and Logistics Management	3
Industrial Management & Data Systems	2
International Journal of Retail & Distribution Management	2
International Journal of Logistics Management	1
Journal of Business Logistics	1
Production and Operations Management	1
Production Planning and Control	1
International Journal of Supply Chain Management	1
General Management	18
Journal of Business Ethics	11
European Management Journal	2
Business and Society Review	1
Journal of Business Strategy	1
International Journal of Business Performance Management	1
Benchmarking	1
Scandinavian Journal of Management	1
Sustainability and Ethics	14
Journal of Cleaner Production	10
Sustainability (Switzerland)	2
Sustainable Development	1
Social Responsibility Journal	1
Regional studies	6
Corporate Social Responsibility and Environmental Management	3
Business Strategy and the Environment	2
Environment and Planning A	1
International Business	6
Journal of International Business Studies	1
International Business Review	1
International Journal of Business and Globalisation	1
Asia Pacific Business Review	1
Journal of Asia-Pacific Business	1
Third World Quarterly	1
Others	7
Clothing and Textiles Research Journal	2
Corporate Governance	1
Human Resource Management	1
International Journal of Business and Globalization	1
Journal of Public Affairs	1
Social Sciences (Pakistan)	1
Total	89

Table 4 Distribution of underpinning theory

Theory	No. of papers
Stakeholder theory	7
Resource based review	5
Transaction costs theory	4
Agency theory	2
Contingency theory	2
Life cycle analysis	2
Resource dependence theory	2
Social exchange theory	2
Legitimacy theory	1
Signaling theory	1
Institutional theory	1
Stewardship theory	1
Self-determination theory	1
Cluster theory	1
Cognitive perspective	1
Relational view	1
Complementarity theory	1
Business ethics theory	1
Organizational learning	1
Hofstede's national culture	1
Corporate strategy	1

Table 5 Thematic coding (N=89)

Author (year)	Antecedents		GS practices							TBL performances		
	Internal driver	External driver	Internal integration (horizontal)	Internal integration (hierarchical)	External integration	Supply internationalization	Control & coordination	Specialization	Allocation of decision-making power	Environmental	Social	Economic
Frequencies	12	28	9	3	80	4	12	4	7	62	73	43
1	Abidin et al. (2016)	×			×					×		
2	Agarwal and Thiel (2010)				×					×		×
3	Ehrgott et al. (2013)	×	×		×				×	×		
4	Geffen and Rothenberg (2000)				×					×		×
5	Green et al. (2012)		×		×					×		×
6	Kumar et al. (2012)	×	×		×					×		×
7	Lai et al. (2008)		×				×			×		×
8	Lee and Klassen (2008)				×					×		
9	Nawrocka (2009)				×		×			×		
10	Pagell (2007)				×					×		×
11	Rao (2002)				×		×			×		×
12	Simpson and Power (2005)				×					×		
13	Wycherley (1999)		×		×					×		
14	Zsidisin and Hendrick (1998)		×		×					×		
15	Van Hoof and Lyon (2013)				×				×	×		×
16	Airike et al. (2016)	×			×					×		
17	Rahim (2017)		×		×						×	
18	Amaeshi (2008)				×						×	
19	Donaghey (2014)				×						×	
20	Egels-Zanden (2016)	×	×		×						×	
21	Egels-Zanden and Lindholm (2015)				×						×	
22	Ehrgott et al. (2011)		×		×						×	
23	Hoejmose et al. (2013)				×						×	
24	Hughes (2005)				×						×	
25	Klassen and Vereecke (2012)		×		×						×	×
26	Kolk (2012)		×		×						×	×

27	Kolk and Van Tulder (2002)					×					×
28	Maignan (2002)	×	×			×					×
29	Merk (2009)		×			×					×
30	Park and Dickson (2008)					×		×			×
31	Robinson (2010)					×					×
32	Jiang (2009)		×			×					×
33	Rahim and Wisuttisak (2013)					×					×
34	Svensson (2009)					×					×
35	Tencati et al. (2008)					×					×
36	Egels-Zanden (2007)					×					×
37	Pedersen and Andersen (2006)					×					×
38	Carter (2000)					×					×
39	Sancha et al. (2015)					×					×
40	van Tulder and Kolk (2001)				×						×
41	Normann et al. (2017)					×					×
42	Lalwani et al. (2018)					×					×
43	Awan et al. (2018)		×			×		×			×
44	Goworek (2011)	×		×		×				×	×
45	Gualandris et al. (2014)					×	×			×	×
46	Lim and Phillips (2008)					×				×	×
47	Mann et al. (2013)							×		×	×
48	Park and Lennon (2006)	×				×		×	×		×
49	Elg and Hultman (2011)		×			×				×	×
50	Oehmen (2010)			×		×		×		×	×
51	Vachon (2010)		×							×	×
52	Moosmayer and Davis (2016)					×				×	×
53	Knorrninga and Nadvi (2016)					×				×	×
54	Andersen and Skjoett-Larsen (2009)	×	×		×	×		×		×	×
55	Park and Stoel (2005)							×		×	×
56	Ciliberti (2008)		×			×				×	×
57	Gorg et al. (2017)					×		×		×	×
58	Hyder et al. (2017)							×		×	×
59	Haartman and Bengtsson (2018)					×				×	×

60	Dabhilkar et al. (2016)			×	×	×			×	×	×
61	Hollos et al. (2012)			×	×				×	×	×
62	Joo et al. (2010)				×				×	×	×
63	Lee (2016)				×				×	×	×
64	Leppelt et al. (2013)			×	×				×	×	×
65	Luzzini et al. (2015)	×		×	×				×	×	×
66	Busse et al. (2016)		×		×				×	×	×
67	Pullman et al. (2009)				×				×	×	×
68	Reuter et al. (2010)		×		×				×	×	×
69	Thornton et al. (2013)				×				×	×	×
70	Wiengarten and Longoni (2015)				×				×	×	×
71	Illge and Preuss (2012)				×				×	×	×
72	Harms et al. (2013)	×	×		×				×	×	×
73	Perry and Towers (2013)	×			×				×	×	×
74	Sethi et al. (2011)		×		×		×		×	×	×
75	Wilhelm et al. (2016)	×			×				×	×	×
76	Shah and Arjoon (2015)		×	×	×				×	×	×
77	Riikkinen et al. (2017)						×		×	×	×
78	Haleem et al. (2017)		×		×				×	×	×
79	Villena and Gioia (2018)				×		×	×	×	×	×
80	Tong et al. (2018)		×	×	×				×	×	×
81	Bustos and Moors (2018)				×				×	×	×
82	Ndubisi and Nygaard (2018)					×			×	×	×
83	Goebel et al. (2018)		×		×		×	×	×	×	×
84	Golini et al. (2018)				×				×	×	×
85	Chen (2018)				×				×	×	×
86	Rezaee (2018)					×	×		×	×	×
87	Ferri and Pedrini (2018)				×				×	×	×
88	Ciasullo et al. (2018)				×				×	×	×
89	Ni and Sun (2018)				×				×	×	×

Fig. 1. Overall review process

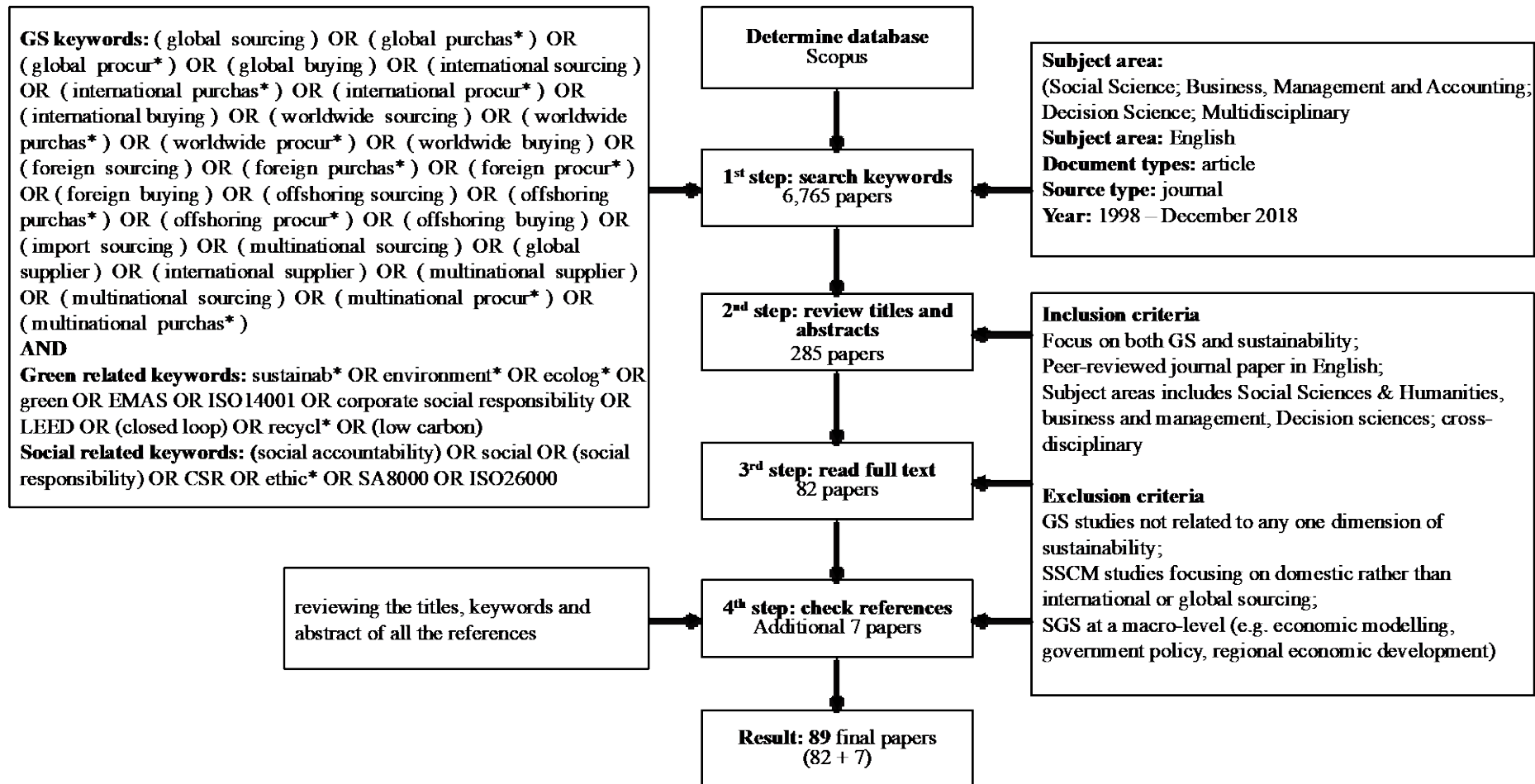


Fig. 2. Distribution of publications per year across the period studied

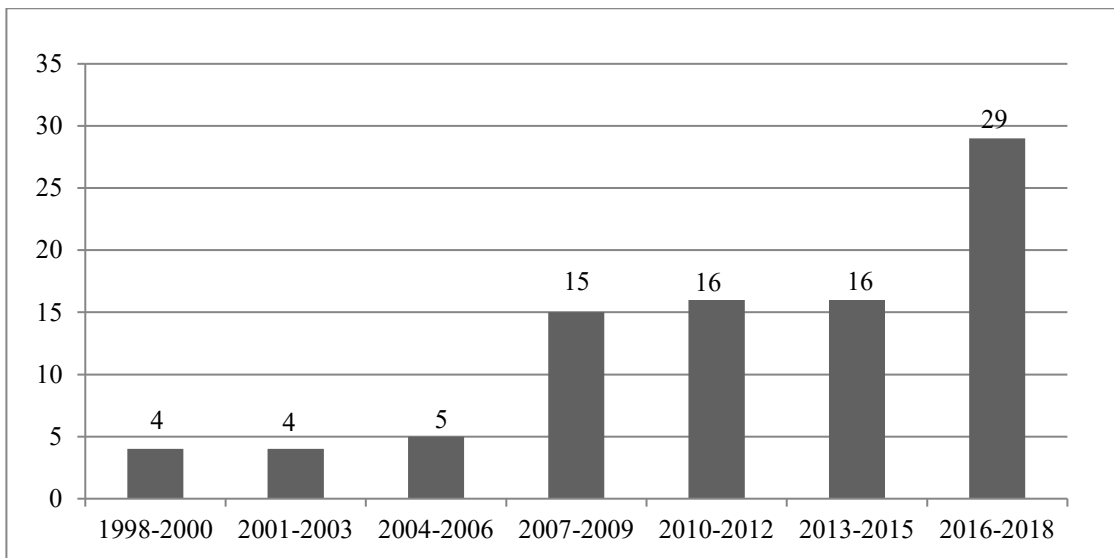


Fig. 3. Distribution of research methodologies

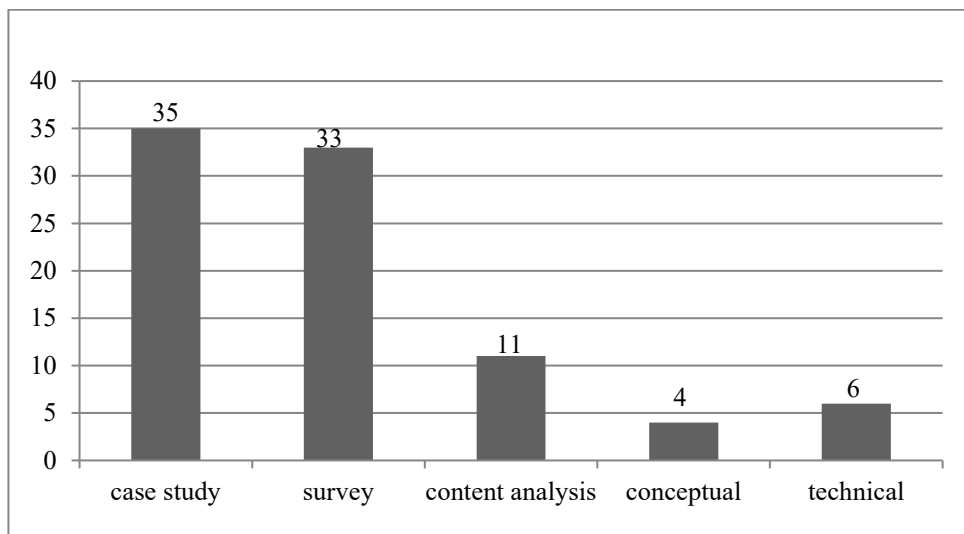
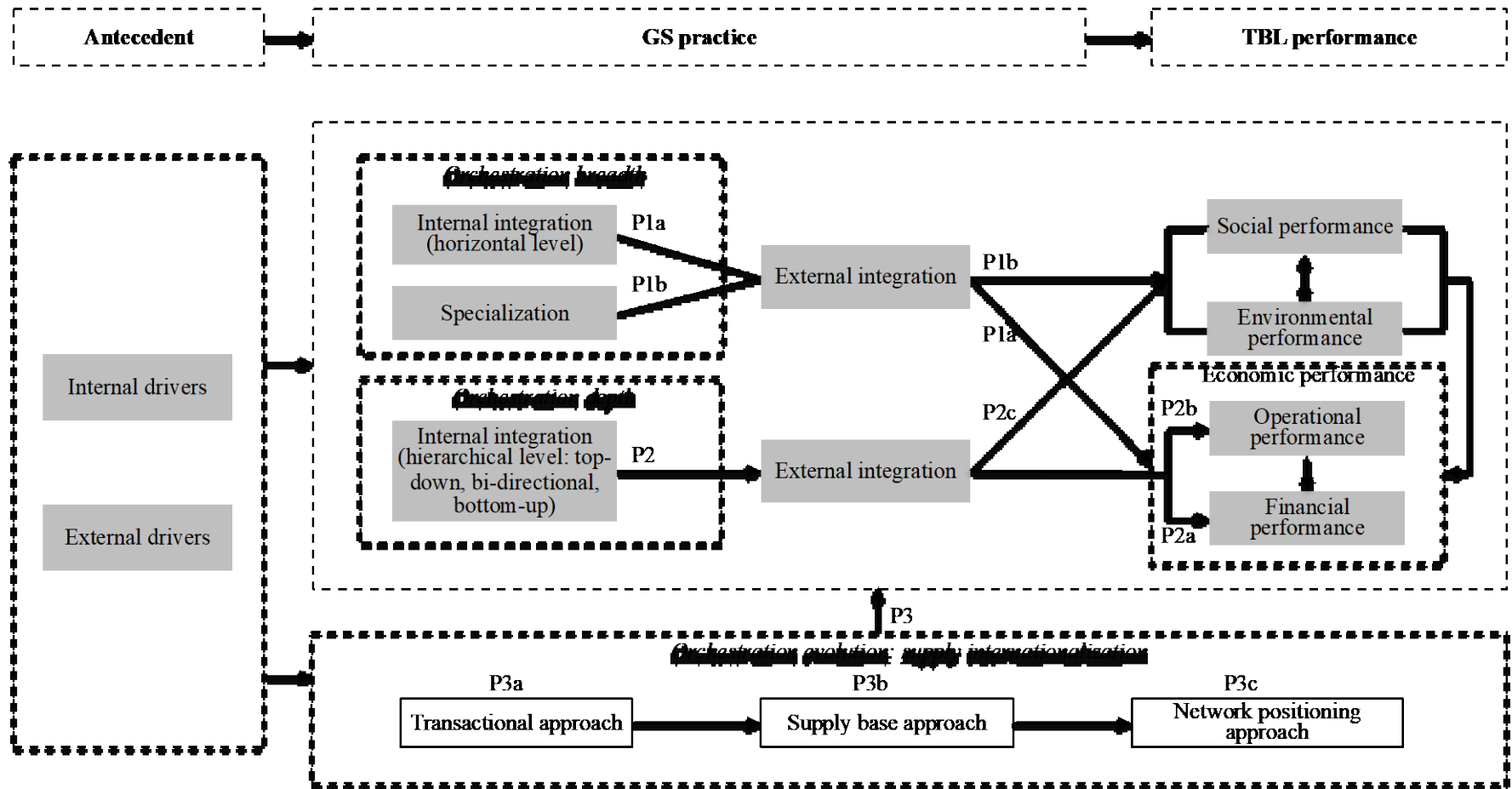


Fig. 4. Conceptual framework



Appendix: Descriptive analysis of the reviewed 89 papers

	Author (year)	Methodology	Sample size	Underpinning theory	Industry
1	Haartman and Bengtsson (2018)	survey	681	N/A	manufacturing
2	Ni and Sun (2018)	survey	898	stakeholder theory, complementarity theory, contingency theory	manufacturing
3	Ciasullo et al. (2018)	content analysis, case study	N/A	N/A	footwear
4	Ferri and Pedrini (2018)	survey	189	stakeholder theory	mixed
5	Rezaee (2018)	content analysis	N/A	agency theory, stakeholder theory, legitimacy theory, signaling theory, institutional theory, stewardship theory	mixed
6	Chen (2018)	content analysis	N/A	resource-dependence theory, social exchange theory, social network theory	Not specific
7	Golini et al. (2018)	survey	619	N/A	manufacturing
8	Goebel et al. (2018)	case study	59	TCE	Not specific
9	Ndubisi and Nygaard (2018)	content analysis	2	N/A	fast fashion, food
10	Bustos and Moors (2018)	case study	2	N/A	food
11	Tong et al. (2018)	survey, technical	199	N/A	manufacturing
12	Villena and Gioia (2018)	case study	3	N/A	automotive, electronics, pharmaceutical
13	Awan et al. (2018)	survey	239	TCE	manufacturing
14	Lalwani et al. (2018)	content analysis	4	N/A	food
15	Normann et al. (2017)	case study	30	social exchange theory	apparel
16	Hyder et al. (2017)	case study	2	N/A	apparel
17	Gorg et al. (2017)	technical	2113	N/A	Not specific
18	Haleem et al. (2017)	survey	381	stakeholder theory	manufacturing
19	Riikkinen et al. (2017)	survey	305	N/A	manufacturing and service
20	Rahim (2017)	content analysis	N/A	N/A	ready-made garments
21	Abidin et al. (2016)	survey	107	N/A	manufacturing
22	Airike et al. (2016)	case study	3	N/A	electronics
23	Egels-Zanden (2016)	case study	1	N/A	clothing
24	Moosmayer and Davis (2016)	case study	4	N/A	electronics, textile

25	Knorringa and Nadvi (2016)	case study	3	cluster theory	Not specific
26	Dabhilkar et al. (2016)	survey	338	power and dependence theory	Not specific
27	Lee (2016)	survey	248	N/A	mixed
28	Busse et al. (2016)	case study	1	N/A	dairy, packaging and aluminum foil
29	Wilhelm et al. (2016)	case study	7	contingency theory	mixed
30	Egels-Zanden and Lindholm (2015)	technical	43	N/A	garment
31	Sancha et al. (2015)	survey	120	relational view	manufacturing
32	Luzzini et al. (2015)	survey	383	RBV	mixed
33	Wiengarten and Longoni (2015)	survey	90	N/A	mixed
34	Shah and Arjoon (2015)	survey	20	self-determination theory	oil and gas
35	Donaghey (2014)	conceptual	-	N/A	Not specific
36	Gualandris et al. (2014)	survey	336	N/A	manufacturing
37	Ehrgott et al. (2013)	technical	224	stakeholder theory, RBV	manufacturing, construction and retail
38	Van Hoof and Lyon (2013)	technical	972	cost-benefit analysis	mixed
39	Hoejmose et al. (2013)	survey	178	business strategy	mixed
40	Rahim and Wisuttisak (2013)	survey	N/A	N/A	RMG
41	Mann et al. (2013)	content analysis	17	N/A	apparel
42	Leppelt et al. (2013)	case study	7	TBL	chemical
43	Thornton et al. (2013)	survey	479	stakeholder theory	mixed
44	Harms et al. (2013)	survey	32	N/A	stock exchange
45	Perry and Towers (2013)	conceptual	1	TCE, RBV and org. learning	garment
46	Agarwal and Thiel (2010)	case study	1	N/A	electronics
47	Green et al. (2012)	survey	159	N/A	manufacturing
48	Kumar et al. (2012)	case study	2	N/A	food, electronics
49	Klassen and Vereecke (2012)	case study	5	N/A	mixed
50	Kolk (2012)	case study	1	N/A	food
51	Hollos et al. (2012)	survey	70	RBV	manufacturing, service
52	Illge and Preuss (2012)	case study	2	N/A	textile
53	Ehrgott et al. (2011)	survey	244	stakeholder theory	mixed
54	Goworek (2011)	case study	1	N/A	clothing
55	Elg and Hultman (2011)	case study, survey	1, 74	N/A	mixed
56	Sethi et al. (2011)	case study	1	LCA	toy
57	Robinson (2010)	case study	88	GCC	food
58	Oehmen (2010)	content	10	N/A	electronics

		analysis, action research			
59	Vachon (2010)	survey	55	Hofstede's national culture	Not specific
60	Joo et al. (2010)	technical	7	N/A	food
61	Reuter et al. (2010)	case study	4	N/A	chemical
62	Nawrocka (2009)	case study	2	N/A	manufacturing
63	Merk (2009)	content analysis	N/A	N/A	garment
64	Jiang (2009)	survey	108	N/A	apparel and textile
65	Svensson (2009)	conceptual, case study	2	transparency of SCM ethics	telecom, fashion clothing
66	Andersen and Skjoett- Larsen (2009)	case study	1	N/A	home furnishing
67	Pullman et al. (2009)	survey	32	RBV	food
68	Lai et al. (2008)	case study	1	TCA, LCA and ECA	automaker
69	Lee and Klassen (2008)	case study	2	N/A	automobile
70	Amaeshi (2008)	content analysis	-	N/A	Not specific
71	Park and Dickson (2008)	survey	209	N/A	apparel and footwear
72	Tencati et al. (2008)	survey	25	N/A	footwear, garment and seafood
73	Lim and Phillips (2008)	case study	1	N/A	footwear
74	Ciliberti (2008)	case study	5	N/A	mixed
75	Pagell (2007)	survey	335	N/A	manufacturing
76	Egels-Zanden (2007)	case study	9	N/A	toy
77	Pedersen and Andersen(2006)	case study	1	agency theory	home furnishing
78	Park and Lennon (2006)	survey	158	business ethics theory	apparel/shoe
79	Simpson and Power (2005)	case study	16	transaction cost theory	automotive assembly
80	Hughes (2005)	case study	10	corporate strategy, interfirm org.	food and clothing
81	Park and Stoel (2005)	survey	158	cognitive perspective	apparel/shoe
82	Rao (2002)	survey	52	N/A	Not specific
83	Kolk and Van Tulder (2002)	case study	6	N/A	garment
84	Maignan (2002)	conceptual	N/A	N/A	Not specific
85	van Tulder and Kolk (2001)	content analysis	13	N/A	sport
86	Geffen and Rothenberg (2000)	case study	3	N/A	automotive assembly
87	Carter (2000)	interview, survey	132	dyadic method	mixed
88	Wycherley (1999)	case study	1	N/A	cosmetic
89	Zsidisin and Hendrick (1998)	survey	200	N/A	Not specific
