

**Title:** Resilient capabilities to tackle supply chain risks: Managing integration complexities in construction projects

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The Table containing all the calculated RII values (including those below the value of 0.75) is attached below.

**Table S1:** Relative Importance Index of SCs.

SC Risks	Sr #	Resilient Capabilities	Relative Importance Index (RII)
<b>01. Health Pandemic</b>	1	People, products & assets visibility (real-time data on location)	0.751633987
	2	Collaborative information exchange (among stakeholders)	0.68627451
	3	Business intelligence gatherings (future trends & technology awareness)	0.718954248
	4	Alternative suppliers/ sources to quickly reallocate order	0.790849673
	5	Inventory management system (Fast rerouting of requirements)	0.758169935
	6	Alternate distribution channels (modes of transportation)	0.705882353
	7	Product commonality (flexible design)	0.660130719
	8	Mode of communications (external, internal)	0.712418301
	9	Order postponement willingly by clients due to disruption	0.732026144
	10	Risk management/business continuity planning	0.705882353
	11	Alternative technology development	0.712418301
	12	Learning from experience	0.732026144
	13	Process improvements (to reduce lead times)	0.764705882
	14	Monitoring early warning signals (near miss analysis)	0.751633987
	15	Customers demand forecasting	0.751633987
	16	Contingency planning (drills, training)	0.745098039
<b>02. Budget overruns/ unplanned expenses</b>	17	People, products & assets visibility (real-time data on location)	0.745098039
	18	Collaborative information exchange (among stakeholders)	0.68627451
	19	Business intelligence gatherings (future trends & technology awareness)	0.673202614
	20	Alternative suppliers/ sources to quickly reallocate order	0.712418301
	21	Inventory management system (Fast rerouting of requirements)	0.745098039
	22	Alternate distribution channels (modes of transportation)	0.738562092
	23	Product commonality (flexible design)	0.666666667
	24	Mode of communications (external, internal)	0.647058824
	25	Order postponement willingly by clients due to disruption	0.725490196
	26	Risk management/business continuity planning	0.68627451
	27	Alternative technology development	0.751633987
	28	Learning from experience	0.712418301
	29	Process improvements (to reduce lead times)	0.712418301

	30	Monitoring early warning signals (near miss analysis)	0.660130719
	31	Customers demand forecasting	0.68627451
	32	Contingency planning (drills, training)	0.725490196
<b>03. Poor information coordination and decision making</b>	33	People, products & assets visibility (real-time data on location)	0.77124183
	34	Collaborative information exchange (among stakeholders)	0.810457516
	35	Business intelligence gatherings (future trends & technology awareness)	0.758169935
	36	Alternative suppliers/ sources to quickly reallocate order	0.738562092
	37	Inventory management system (Fast rerouting of requirements)	0.725490196
	38	Alternate distribution channels (modes of transportation)	0.732026144
	39	Product commonality (flexible design)	0.673202614
	40	Mode of communications (external, internal)	0.751633987
	41	Order postponement willingly by clients due to disruption	0.732026144
	42	Risk management/business continuity planning	0.68627451
	43	Alternative technology development	0.68627451
	44	Learning from experience	0.751633987
	45	Process improvements (to reduce lead times)	0.745098039
	46	Monitoring early warning signals (near miss analysis)	0.738562092
	47	Customers demand forecasting	0.725490196
	48	Contingency planning (drills, training)	0.705882353
<b>04. Insufficient management oversight (on SC members)</b>	49	People, products & assets visibility (real-time data on location)	0.751633987
	50	Collaborative information exchange (among stakeholders)	0.77124183
	51	Business intelligence gatherings (future trends & technology awareness)	0.68627451
	52	Alternative suppliers/ sources to quickly reallocate order	0.712418301
	53	Inventory management system (Fast rerouting of requirements)	0.738562092
	54	Alternate distribution channels (modes of transportation)	0.758169935
	55	Product commonality (flexible design)	0.68627451
	56	Mode of communications (external, internal)	0.68627451
	57	Order postponement willingly by clients due to disruption	0.725490196
	58	Risk management/business continuity planning	0.692810458
	59	Alternative technology development	0.732026144
	60	Learning from experience	0.764705882
	61	Process improvements (to reduce lead times)	0.718954248
	62	Monitoring early warning signals (near miss analysis)	0.738562092
	63	Customers demand forecasting	0.745098039
	64	Contingency planning (drills, training)	0.725490196
<b>05. Visibility of errors/ deficiencies to stakeholders</b>	65	People, products & assets visibility (real-time data on location)	0.718954248
	66	Collaborative information exchange (among stakeholders)	0.784313725
	67	Business intelligence gatherings (future trends & technology awareness)	0.679738562
	68	Alternative suppliers/ sources to quickly reallocate order	0.692810458
	69	Inventory management system (Fast rerouting of requirements)	0.666666667

	70	Alternate distribution channels (modes of transportation)	0.712418301
	71	Product commonality (flexible design)	0.692810458
	72	Mode of communications (external, internal)	0.68627451
	73	Order postponement willingly by clients due to disruption	0.699346405
	74	Risk management/business continuity planning	0.68627451
	75	Alternative technology development	0.692810458
	76	Learning from experience	0.738562092
	77	Process improvements (to reduce lead times)	0.725490196
	78	Monitoring early warning signals (near miss analysis)	0.692810458
	79	Customers demand forecasting	0.738562092
	80	Contingency planning (drills, training)	0.699346405
<b>06. Outsourcing to different suppliers</b>	81	People, products & assets visibility (real-time data on location)	0.712418301
	82	Collaborative information exchange (among stakeholders)	0.666666667
	83	Business intelligence gatherings (future trends & technology awareness)	0.699346405
	84	Alternative suppliers/ sources to quickly reallocate order	0.745098039
	85	Inventory management system (Fast rerouting of requirements)	0.738562092
	86	Alternate distribution channels (modes of transportation)	0.745098039
	87	Product commonality (flexible design)	0.666666667
	88	Mode of communications (external, internal)	0.68627451
	89	Order postponement willingly by clients due to disruption	0.640522876
	90	Risk management/business continuity planning	0.692810458
	91	Alternative technology development	0.679738562
	92	Learning from experience	0.712418301
	93	Process improvements (to reduce lead times)	0.738562092
	94	Monitoring early warning signals (near miss analysis)	0.699346405
	95	Customers demand forecasting	0.712418301
	96	Contingency planning (drills, training)	0.699346405
<b>07. Decentralization of suppliers/ operation facilities</b>	97	People, products & assets visibility (real-time data on location)	0.712418301
	98	Collaborative information exchange (among stakeholders)	0.725490196
	99	Business intelligence gatherings (future trends & technology awareness)	0.673202614
	100	Alternative suppliers/ sources to quickly reallocate order	0.758169935
	101	Inventory management system (Fast rerouting of requirements)	0.758169935
	102	Alternate distribution channels (modes of transportation)	0.745098039
	103	Product commonality (flexible design)	0.68627451
	104	Mode of communications (external, internal)	0.712418301
	105	Order postponement willingly by clients due to disruption	0.673202614
	106	Risk management/business continuity planning	0.647058824
	107	Alternative technology development	0.673202614
	108	Learning from experience	0.718954248
	109	Process improvements (to reduce lead times)	0.738562092
	110	Monitoring early warning signals (near miss analysis)	0.705882353
	111	Customers demand forecasting	0.705882353

	112	Contingency planning (drills, training)	0.712418301
<b>08. Severe price fluctuations in the market</b>	113	People, products & assets visibility (real-time data on location)	0.745098039
	114	Collaborative information exchange (among stakeholders)	0.732026144
	115	Business intelligence gatherings (future trends & technology awareness)	0.705882353
	116	Alternative suppliers/ sources to quickly reallocate order	0.745098039
	117	Inventory management system (Fast rerouting of requirements)	0.725490196
	118	Alternate distribution channels (modes of transportation)	0.725490196
	119	Product commonality (flexible design)	0.699346405
	120	Mode of communications (external, internal)	0.660130719
	121	Order postponement willingly by clients due to disruption	0.732026144
	122	Risk management/business continuity planning	0.653594771
	123	Alternative technology development	0.718954248
	124	Learning from experience	0.712418301
	125	Process improvements (to reduce lead times)	0.699346405
	126	Monitoring early warning signals (near miss analysis)	0.660130719
	127	Customers demand forecasting	0.732026144
	128	Contingency planning (drills, training)	0.673202614
<b>09. Exposure to natural disasters</b>	129	People, products & assets visibility (real-time data on location)	0.77124183
	130	Collaborative information exchange (among stakeholders)	0.77124183
	131	Business intelligence gatherings (future trends & technology awareness)	0.745098039
	132	Alternative suppliers/ sources to quickly reallocate order	0.732026144
	133	Inventory management system (Fast rerouting of requirements)	0.732026144
	134	Alternate distribution channels (modes of transportation)	0.732026144
	135	Product commonality (flexible design)	0.705882353
	136	Mode of communications (external, internal)	0.68627451
	137	Order postponement willingly by clients due to disruption	0.725490196
	138	Risk management/business continuity planning	0.745098039
	139	Alternative technology development	0.764705882
	140	Learning from experience	0.712418301
	141	Process improvements (to reduce lead times)	0.738562092
	142	Monitoring early warning signals (near miss analysis)	0.725490196
	143	Customers demand forecasting	0.718954248
	144	Contingency planning (drills, training)	0.725490196
<b>10. Pressure from public opinion</b>	145	People, products & assets visibility (real-time data on location)	0.718954248
	146	Collaborative information exchange (among stakeholders)	0.712418301
	147	Business intelligence gatherings (future trends & technology awareness)	0.738562092
	148	Alternative suppliers/ sources to quickly reallocate order	0.705882353
	149	Inventory management system (Fast rerouting of requirements)	0.692810458
	150	Alternate distribution channels (modes of transportation)	0.699346405
	151	Product commonality (flexible design)	0.68627451

	152	Mode of communications (external, internal)	0.660130719
	153	Order postponement willingly by clients due to disruption	0.647058824
	154	Risk management/business continuity planning	0.673202614
	155	Alternative technology development	0.699346405
	156	Learning from experience	0.692810458
	157	Process improvements (to reduce lead times)	0.679738562
	158	Monitoring early warning signals (near miss analysis)	0.679738562
	159	Customers demand forecasting	0.725490196
	160	Contingency planning (drills, training)	0.679738562
	161	People, products & assets visibility (real-time data on location)	0.718954248
<b>11. Poor utilities (electrical power, water, sewer) availability</b>	162	Collaborative information exchange (among stakeholders)	0.712418301
	163	Business intelligence gatherings (future trends & technology awareness)	0.712418301
	164	Alternative suppliers/ sources to quickly reallocate order	0.725490196
	165	Inventory management system (Fast rerouting of requirements)	0.68627451
	166	Alternate distribution channels (modes of transportation)	0.68627451
	167	Product commonality (flexible design)	0.679738562
	168	Mode of communications (external, internal)	0.68627451
	169	Order postponement willingly by clients due to disruption	0.673202614
	170	Risk management/business continuity planning	0.620915033
	171	Alternative technology development	0.692810458
	172	Learning from experience	0.660130719
	173	Process improvements (to reduce lead times)	0.692810458
	174	Monitoring early warning signals (near miss analysis)	0.673202614
	175	Customers demand forecasting	0.699346405
	176	Contingency planning (drills, training)	0.692810458
<b>12. Products quality problems</b>	177	People, products & assets visibility (real-time data on location)	0.718954248
	178	Collaborative information exchange (among stakeholders)	0.68627451
	179	Business intelligence gatherings (future trends & technology awareness)	0.673202614
	180	Alternative suppliers/ sources to quickly reallocate order	0.712418301
	181	Inventory management system (Fast rerouting of requirements)	0.705882353
	182	Alternate distribution channels (modes of transportation)	0.68627451
	183	Product commonality (flexible design)	0.692810458
	184	Mode of communications (external, internal)	0.679738562
	185	Order postponement willingly by clients due to disruption	0.705882353
	186	Risk management/business continuity planning	0.68627451
	187	Alternative technology development	0.699346405
	188	Learning from experience	0.653594771
	189	Process improvements (to reduce lead times)	0.699346405
	190	Monitoring early warning signals (near miss analysis)	0.712418301
	191	Customers demand forecasting	0.692810458
	192	Contingency planning (drills, training)	0.699346405
	193	People, products & assets visibility (real-time data on location)	0.745098039

<b>13. Transportation disruption during operations</b>	194	Collaborative information exchange (among stakeholders)	0.732026144
	195	Business intelligence gatherings (future trends & technology awareness)	0.699346405
	196	Alternative suppliers/ sources to quickly reallocate order	0.732026144
	197	Inventory management system (Fast rerouting of requirements)	0.738562092
	198	Alternate distribution channels (modes of transportation)	0.777777778
	199	Product commonality (flexible design)	0.679738562
	200	Mode of communications (external, internal)	0.718954248
	201	Order postponement willingly by clients due to disruption	0.732026144
	202	Risk management/business continuity planning	0.660130719
	203	Alternative technology development	0.679738562
	204	Learning from experience	0.699346405
	205	Process improvements (to reduce lead times)	0.705882353
	206	Monitoring early warning signals (near miss analysis)	0.712418301
	207	Customers demand forecasting	0.699346405
	208	Contingency planning (drills, training)	0.68627451
<b>14. Limited production &amp; distribution capacity</b>	209	People, products & assets visibility (real-time data on location)	0.732026144
	210	Collaborative information exchange (among stakeholders)	0.725490196
	211	Business intelligence gatherings (future trends & technology awareness)	0.77124183
	212	Alternative suppliers/ sources to quickly reallocate order	0.718954248
	213	Inventory management system (Fast rerouting of requirements)	0.732026144
	214	Alternate distribution channels (modes of transportation)	0.679738562
	215	Product commonality (flexible design)	0.732026144
	216	Mode of communications (external, internal)	0.699346405
	217	Order postponement willingly by clients due to disruption	0.68627451
	218	Risk management/business continuity planning	0.699346405
	219	Alternative technology development	0.745098039
	220	Learning from experience	0.745098039
	221	Process improvements (to reduce lead times)	0.758169935
	222	Monitoring early warning signals (near miss analysis)	0.810457516
	223	Customers demand forecasting	0.758169935
	224	Contingency planning (drills, training)	0.68627451
<b>15. Exposure to political disruptions</b>	225	People, products & assets visibility (real-time data on location)	0.679738562
	226	Collaborative information exchange (among stakeholders)	0.679738562
	227	Business intelligence gatherings (future trends & technology awareness)	0.640522876
	228	Alternative suppliers/ sources to quickly reallocate order	0.647058824
	229	Inventory management system (Fast rerouting of requirements)	0.633986928
	230	Alternate distribution channels (modes of transportation)	0.607843137
	231	Product commonality (flexible design)	0.633986928
	232	Mode of communications (external, internal)	0.666666667
	233	Order postponement willingly by clients due to disruption	0.640522876

234	Risk management/business continuity planning	0.653594771
235	Alternative technology development	0.660130719
236	Learning from experience	0.647058824
237	Process improvements (to reduce lead times)	0.679738562
238	Monitoring early warning signals (near miss analysis)	0.679738562
239	Customers demand forecasting	0.614379085
240	Contingency planning (drills, training)	0.68627451