Supply Chain Resilience

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Accenture is a global professional services company with leading capabilities in digital, cloud and security.

Combining unmatched experience and specialized skills across more than 40 industries, we offer Strategy and Consulting, Interactive, Technology and Operations services—all powered by the world’s largest network of Advanced Technology and Intelligent Operations centers.

Our 674,000 people deliver on the promise of technology and human ingenuity every day, serving clients in more than 120 countries.

We embrace the power of change to create value and shared success for our clients, people, shareholders, partners and communities.
To deliver on the promise of technology and human ingenuity
We provide a broad range of services at scale – from strategy to operations.

**Strategy & Consulting**
- Strategies to Accelerate Digital Transformation
- Enhancing Growth / Profitability to Deliver Sustainable Value
- Deep Industry / Functional Expertise
- Applied Intelligence
- Innovation Hubs
- Connected Products / Platforms

**Interactive**
- Meaningful Experiences to Drive Growth and Value
- Growth, Product & Culture Design
- Technology & Experience Platforms
- Creative, Media & Marketing Strategy
- Campaign, Content & Channel Orchestration

**Technology**
- Cloud
- Systems Integration / Application Management
- Security
- Intelligent Platform Services
- Infrastructure
- Software Engineering
- Labs / Ventures
- Ecosystem Alliances

**Operations**
- Business Process Services
- Function-Specific
- Finance & Accounting / Procurement / Supply Chain / Marketing
- Industry-Specific
- Banking / Insurance / Health Care
### Unforeseen disruptions are inevitable

**Crises are tending to increase in both frequency and scale.**

**Managing supply chain risk will likely be more challenging in the future.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Extreme Weather</td>
<td>During Jan-Sept 2020, a <strong>record 16 separate billion-dollar weather and climate disaster events</strong> created a mounting economic impact.1</td>
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<tr>
<td>Geopolitical</td>
<td><strong>Over 78%</strong> of respondents to latest World Economic Forum’s Global Risks Perception Survey see “economic confrontations” increasing.2</td>
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<tr>
<td>Global Cyber Attack</td>
<td>Cyber security is a priority for 75% of experts; only **16% estimate their company is well prepared to handle cyber security challenges.**3</td>
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<tr>
<td>Financial Crisis</td>
<td>Debt incurred over time from coronavirus stimulus spending could mean **deeper crisis and default risks for some countries.**4</td>
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<tr>
<td>Sales / Tariffs</td>
<td>Recent US trade law violation and new tariff increases on US exports demonstrate <strong>ongoing dispute</strong> between allies.5</td>
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<tr>
<td>Health Threats</td>
<td>COVID-19 is part of a pattern of <strong>increasingly frequent epidemics</strong> that coincided with globalization, urbanization and climate change.6</td>
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<tr>
<td>Demand Surge and Demand Shift</td>
<td>Tweet/viral video can cause unprecedented spike in demand, creating “business moment” with **exceptional opportunity AND implications.**7</td>
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<tr>
<td>Workforce Stability</td>
<td>Domestic labor issues during COVID-19 caused <strong>multi-sector stoppages in US production</strong> and became bottle-neck in food supply.8</td>
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</tbody>
</table>

**Sources:**
1) Evidence for sharp increase in the economic damages of extreme natural disasters
2) Global Risks 2020: An Unsettled World
3) Cyber security risks in globalized supply chains: conceptual framework
4) A double recession? Economies risk debt crises after stimulus spending
5) The Latest on Tariffs and Their Impact on Business Strategies
6) Coronavirus isn’t an outlier, it’s part of our interconnected viral age
7) The Impact of a Celebrity Tweet on Your Supply Chain
8) Transportation bottlenecks snarl inputs to food supply chains
The impact of disruption is experienced across the value chain

With increasingly complex, global supply networks, disruptions have the potential to significantly impact areas throughout the value chain. The biggest effects may be yet to come for some, or as a rebound for others...

Examples of challenges across the value chain:

**Suppliers**
Significant challenges in distributing supplies, e.g. quarantine and trade restrictions.
Consumers concerned with traceability and source country of products.

**Manufacturing**
Factories in quarantine, production plants totally shutdown.
Production challenges due to lack of raw materials availability.

**Logistics**
Travel restrictions including airports, roads, trains and ports.
Market closures.
Carriers suffering shortage of drivers / driver man-hour restrictions.

**Sales**
Consumers shifting demand away from stores to online and prioritizing ‘need’ vs. ‘want’ purchases.
Stores are closed or have shortened hours, with mass inventory depletion due to panic purchases.

**Labor**
Quarantine measures cause labor shortages and temporary unemployment.
Employees preferring to stay/work from home and those in service industries unable to do so.
Reduced productivity from infection/fear.
Most supply chains are underprepared

Supply chains have developed capabilities to withstand short-term disruptions with operational risk mitigation plans. However, large-scale unpredictable disruptions have been met with inadequate preparedness and understanding.

For example, the scale of the COVID-19 pandemic eclipsed the preparations of most companies. Large scale disruptions like the pandemic ranked low as a focus for risk mitigation efforts, per a survey of supply chain leaders.¹

For low-probability, high-impact “black swan” events², standard risk models fall short. As a result, most companies do not have contingency plans in place, leaving supply chain executives scrambling to respond.

71% of companies surveyed did not have a business operations contingency plan in case the outbreak lasted longer than a few weeks³

Sources:
1) Supply Chain Insights, 2018
2) HBR: How Coronavirus could impact the global supply chain
3) (Webinar) The Economist: Coronavirus outbreak – economic and business implications 03-February 2020

WHAT is needed to rapidly and effectively mobilize my organization?

HOW do we recognize the most critical impacts to our customers, people and business?

WHAT data and analytics are required to measure and inform the insights to our action plan?

HOW does our action plan account for the characteristics of our supply chain?

WHAT needs to change in my operations to ensure ongoing agility and resilience?
**What is Supply Chain Resilience?**

“Supply Chain Resilience is the ability of a company’s end-to-end supply chain and operations to absorb, adapt to, and recover from a disruptive event within your supply chain”

Supply chain resilience lays the foundation for enabling risk management operationally, tactically, and strategically.

<table>
<thead>
<tr>
<th>Business Challenge</th>
<th>Approach</th>
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<tr>
<td><strong>Operational Risk</strong></td>
<td>How can I quickly respond to a sudden change in my supply / demand picture?</td>
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<td></td>
<td>• “Real-Time” Extended Supply Risk Identification &amp; Mitigation</td>
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<td></td>
<td>• Short-term Supply / Demand mismatch visibility (e.g. Control Tower)</td>
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<tr>
<td><strong>Tactical Risk</strong></td>
<td>How can my supply chain adapt to evolving view(s) of demand / supply plans?</td>
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<tr>
<td></td>
<td>• Scenario Planning &amp; Modeling as part of S&amp;OP cycle</td>
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<tr>
<td></td>
<td>• Risk vs opportunity analysis as part of S&amp;OP</td>
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<td><strong>Strategic Risk</strong></td>
<td>How can I create flexibility and redundancy across my supply chain to mitigate business risk?</td>
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<td></td>
<td>• Footprint / Network Modeling and Simulation</td>
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<td></td>
<td>• Strategic buffer sizing</td>
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<td></td>
<td>• Multi-Sourcing options</td>
</tr>
<tr>
<td><strong>Supply Chain Resilience</strong></td>
<td>How is my supply chain able to absorb and recover from shock? What are the potential “points of failure”?</td>
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<td>• Resilience Stress Test</td>
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A resilient supply chain...

- Can have **real time visibility** on the performance of their E2E supply chain including suppliers and 3PLs.
- Can **understand the market impact** of a shortage with a supplier or in a manufacturing site **in real time**.
- Can be **agile for some categories and cost oriented** for others.
- Can achieve **customer-centric growth** informed via advanced analytics capabilities.
- Can understand in advance **the cost/revenue impact** of reacting to a change in demand/supply.
- Can adjust the distribution or production plan based on **real time demand without manual intervention**.
- Can shift focus from **transactional work** to **decision making** based on insights.
- Can create a unified view of demand, while also eliminating guess work and grunt work to create accurate, timely and granular forecasts.
Navigating disruption through supply chain resilience

**MOBILIZE** the command center and (initial) response plan. Establish operating rules for responses related to all supply chain interventions and contingency management.

**CONFIGURE** and tailor the network and products flows to execute the protocols. Develop balanced scorecard to track and measure the effort.

**SENSE** and prioritize new risks and implications to your supply chain components, products/services and ecosystem.

**ANALYZE** what-if scenarios and protocols for source, plan, make, distribute and service implications.

**Mobilize**

**Sense**

**Operate** Execute the plan and monitor results

**Configure**

**Analyze**

Underpinned by a digital & analytics backbone
Effective supply chain resilience requires **key capabilities**

<table>
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<tr>
<th>Mobilize</th>
<th>Sense</th>
<th>Analyze</th>
<th>Configure</th>
<th>Operate</th>
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</thead>
<tbody>
<tr>
<td>Command center (design, capabilities and playbook)</td>
<td>Intelligence (spanning demand prediction, suppliers and capital operations)</td>
<td>Applied analytics (social listening, text mining, artificial intelligence derived by machine learning)</td>
<td>Intelligent automation (robotic process automation)</td>
<td>Confluent (intelligence, transparency, alerts management, data cleansing and harmonization)</td>
</tr>
<tr>
<td>Data integration (data harmonization &amp; data quality from different data sources)</td>
<td>Business Systems (analytics, extracting insights, developing plans, executing transactions)</td>
<td>Optimization (physical network, labor planning, product flow, inventory positioning)</td>
<td>Simulation / scenario modelling</td>
<td>Change management and communications (brand, purpose, strategy, services)</td>
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<tr>
<td>Risk analyzer</td>
<td>Process digital twin</td>
<td>Op model design &amp; workforce planning</td>
<td>End-to-end value chain transparency &amp; analytics</td>
<td>Supply chain managed services</td>
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Supply chain resilience leverages **digital for speed**

A digital and analytics backbone are crucial to understanding supply chain complexity, anticipating disruption, and quickly developing a response.

<table>
<thead>
<tr>
<th>ENABLERS</th>
<th>Understand the Disruption (demand, supply, network)</th>
<th>Manage the Disruption</th>
<th>Operate in New Normal</th>
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</thead>
</table>
| Data     | • Internal >> feed segmentation and risk analysis / prioritization  
          • External >> inform macro-economic effects (trade / transport restrictions, employment, geo-political)  
          • Create visualization from data extracts  
          • Capture IoT, POS, and sensor data | • Internal >> feed what-if scenario, capacity, production schedule analysis, inventory positioning  
          • External >> supplier capacity & lead-times, employment & market changes | • Internal >> inform production capacity and capabilities for new in-demand products  
          • External >> management of ecosystem partnerships |
| Platforms| • Segment the supply chain by risk / disruption type  
          • Assess risk types across the value chain  
          • Sense changes in demand / customer sentiment | • Modify alert / exception thresholds (increase sensitivity)  
          • Modify inventory policies / replenishment models  
          • Share data / enable collaboration across partner ecosystem | • Facilitate integrated business planning  
          • Share data across ecosystem  
          • Enable rebalancing of the multi-echelon network |
| Applied Analytics | • Run complex what-if scenario-models  
          • Anticipate disruption impacts across the supply chain(s)  
          • Recommend changes to network, product flow, policies / thresholds, etc. | | • Automate response protocol execution  
          • Embed predictive analytics into decision making  
          • Optimize physical network, labor planning, inventory, etc. |
Leaders develop fit-for-purpose capabilities across their network to build resilience.

Supply Chain Resilience is not a single solution

**Integrated Planning**
- Intelligent execution
- Potential impact quantification
- Optimal solutions protocols identification
- Ability to execute & right to execute

**Sourcing & Procurement**
- Multi-sourcing
- Diversification of supply base
- Supply buffering
- Centralized risk modeling

**Manufacturer**
- Product design
- Multiple qualified manufacturing sites
- Off the shelf product preference
- Cross-functional collaboration for capacity analysis and capital allocation

**Internal Supply Chain Functions**
- End to end data driven supply chain
- Seamless information connectivity across ecosystem
- Cross-functional collaboration
- Systems resilience for critical capabilities
- Workforce adaptability

**Supplier Management**
- Active multi-tier supplier performance management
- Collaborative supplier relationships
- Raw material / inbound supply visibility
- Shared wins contracting

**End to End Fulfillment with Finished Goods**
- Intelligent execution
- Intelligent automation of response
- Late-stage fulfillment

**Transport and Last Mile Delivery**
- Intelligent execution
- Potential impact quantification
- Optimal solutions protocols identification
- Ability to execute & right to execute
Thank You