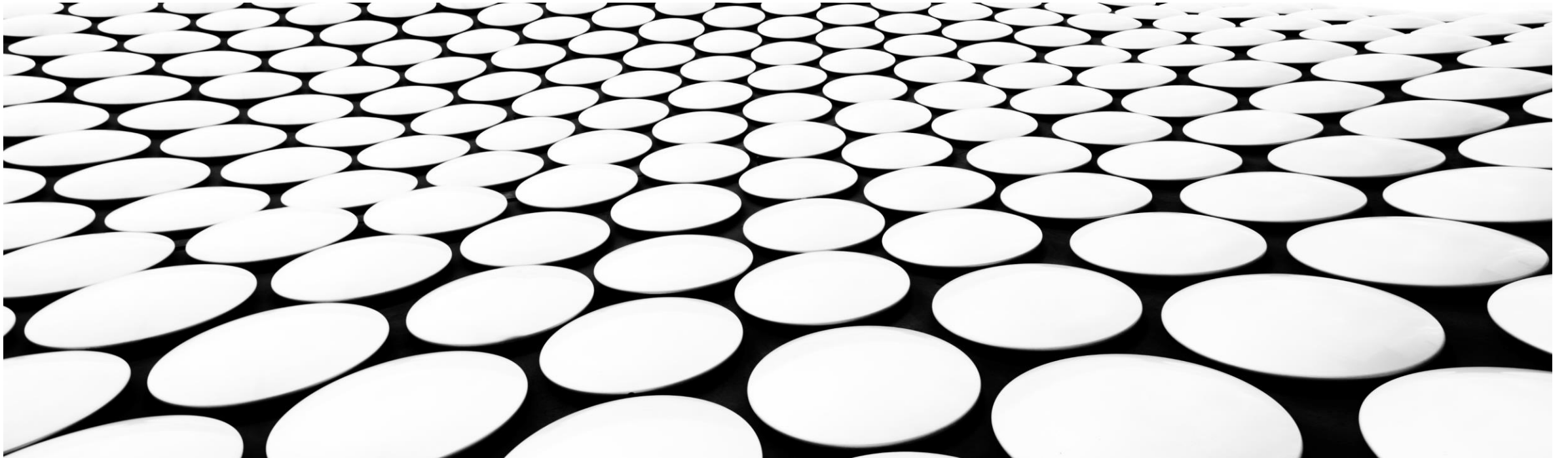


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# THE VALUE OF BEING A “GOOD” CUSTOMER

LOOKING AT BUYER-SUPPLIER RELATIONS FROM THE SUPPLIER'S PERSPECTIVE!



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# NDIA

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## RESEARCH QUESTIONS DRIVING THIS STUDY

To what extent is the military branch under study a good customer

- Relative to the private sector?

What makes for a “good” customer?

Why does it matter?

Is it enough to be a “good” customer?

Why is this important?

- Rethinking supply chain management in the post-COVID 19 world



**IT ALL BEGAN  
WITH A CALL?**

# MOTIVATION FOR THE STUDY

- Shrinkage in the DoD Supply Chain (Murphy, 2019)
  - From fiscal 2009 to fiscal 2018, the vendor account stood at 115,000
    - 27% reduction
  - Reduction concentrated in the small to medium sized enterprise sector
    - 131.000 (2009) → 88,000 (2018)
    - Large vendors only fell by 4%
  - Increase in government spending over same time period
    - 39% increase
- Inability to secure acceptable bids on certain, critical components.

## TIMELINE TO THE STUDY

Began on September 17, 2019

- In response to a direct request for the undersecretary of the military branch

Timeline

- Survey developed from September 17 to September 30, 2019
- Launched September 30, 2019
  - Ultimately over 1,300 responses received
- Data collected phase ended October 25, 2019
- First report to the military branch
  - October 28, 2019
- Briefing with the military branch and invited participants
  - December 13, 2019



## RESEARCH BACKGROUND

- Most research into supplier development has focused on either the buyer's perspective or, in some cases, a dyadic perspective
- This research focus is at odds with what is now being observed in industry
  - Good suppliers fire bad customers
- Concept of “earned preferential treatment”
- Working Relationship Index (WRI)
  - Initially started by John Henke, Oakland University
  - Now owned and managed by Plante Moran
  - Major supply chain statistic in the automotive industry
  - Focuses on the first tier

# Sampling Frame



Small to medium sized enterprises

- Firms with 500 or fewer employees

Three groups identified

- Current suppliers
- Past suppliers
- Private suppliers

Survey developed by MSU in cooperation with purchasing experts

- Deployed on Qualtrics

Survey distributed by NDIA

Supported by a strong invitation from the acting secretary of the branch.

# WHAT MAKES FOR A GOOD CUSTOMER?

- THE ELEMENTS

Consumer Attractiveness Attributes

Attribute Name	Attribute Description
TRUST	Mutual trust and respect
PROFIT	Profitability of dealing with the customer
PROBLEMS	Joint problem solving
SIMPLERFP	Simple and complete Request for Quotation/Request for Proposals
TIMELYAWD	Timely awarding of contracts
CLARITY	Clarity of interactions
PREDREVNU	Predictability of revenue flow
CONFLICT	Effective conflict resolution systems
OVERALL	Overall ease of doing business
OPENNESS	Openness to suggestions and improvements from suppliers
EARLYWRN	Early warnings (regarding orders, problems, opportunities)
LTCOMMIT	Long-term commitment to suppliers
FREQCOMM	Frequency of communication (rather than only communication when there is a problem or a bid to be placed)
TRANSPART	Transparency of projects and purchases
PERMEAS	Effective, meaningful performance measures
MISSION	Clear mission and statement
CONSISTMESS	Consistency of messages/measures across levels and organizations
RISK	Risk sharing
INTEROP	Good interoperability (i.e., ability to link processes and share data).
SUPPLIERIMP	Programs for supplier improvement (in response to performance issues)
SUPPLIERDP	Supplier development programs

# DEMOGRAPHICS

- Surveys Completed:
  - Total: 1251
  - Participate: 1226
  - Declined: 25
  
- Supplier Breakdown:
  - Have never been suppliers: 692
  - Past suppliers: 148
  - Current suppliers: 311

Approximately how many employees are located in your company?	Freq.	Percent	Cum.
1-25	383	60.89	60.89
26-50	75	11.92	72.81
51-100	60	9.54	82.35
101-500	78	12.40	94.75
More than 500 employees	26	4.13	98.89
Would rather not say	7	1.11	100.00
<b>Total</b>	<b>629</b>	<b>100.00</b>	

How long has your company been a supplier to t ?	Freq.	Percent	Cum.
Less than 1 year	11	5.09	5.09
1-5 years	47	21.76	26.85
6-10 years	35	16.20	43.06
11-15 years	26	12.04	55.09
More than 15 years	74	34.26	89.35
Was previously, but no longer a supplie	23	10.65	100.00
<b>Total</b>	<b>216</b>	<b>100.00</b>	

Where is your organization located?	Freq.	Percent	Cum.
Northeast	245	41.04	41.04
Southeast	131	21.94	62.98
Northwest	30	5.03	68.01
Southwest	124	20.77	88.78
West (including Alaska and Hawaii)	61	10.22	98.99
OCONUS (US Territories)	6	1.01	100.00
<b>Total</b>	<b>597</b>	<b>100.00</b>	

# BEING A GOOD CUSTOMER

AVERAGE RATINGS

Consumer Attractiveness Attributes Evaluated by Suppliers  
Mean Values

<i>Trait</i>	<i>Importance</i>	<i>Sign.</i>
Mutual trust and respect	4.52	++
Profitability	4.29	
Joint problem solving	4.25	++
Simple and complete RFQ	4.24	
Timely awarding of contracts	4.18	
Clarity of interactions	4.18	++
Predictability of revenue flow	4.18	
Effective conflict resolution systems	4.13	++
Overall ease of doing business	4.09	
Openness to suggestions and improvements	4.08	++
Early warning	4.05	++
Long-term commitment to suppliers	4.04	
Frequency of communication	4.01	++
Transparency of projects and purchases	3.98	++
Effective, meaningful performance measures	3.97	
Clear mission and statement	3.93	
Consistency of messages/measures	3.93	++
Risk sharing	3.80	+
Interoperability	3.79	++
Programs for supplier improvement (performance)	3.77	++
Supplier development programs	3.38	++
	4.04	

**Note:** For Sign (significance), ++ denotes that the differences between the groups is significant at the 0.05 level; + denotes that the differences are significant at the 0.10 level.

# KEY TRAITS – IMPORTANCE TO THE SUPPLIERS

IS THE BRANCH A “GOOD” CUSTOMER?

Trait	Importance	Sign.	Branch	Private	Difference
			Assessment	Assessment	
Mutual trust and respect	4.52	++	3.29	3.63	-0.34
Profitability	4.29		2.91	3.71	-0.80
Joint problem solving	4.25	++	3.06	3.56	-0.50
Simple and complete RFQ	4.24		2.98	3.75	-0.77
Timely awarding of contracts	4.18		2.78	3.81	-1.03
Clarity of interactions	4.18	++	3.13	3.61	-0.48
Predictability of revenue flow	4.18		2.88	3.48	-0.60
Effective conflict resolution systems	4.13	++	3.03	3.34	-0.31
Overall ease of doing business	4.09		2.88	3.86	-0.98
Openness to suggestions and improvements	4.08	++	2.78	3.61	-0.83
Early warning	4.05	++	2.81	3.30	-0.49
Long-term commitment to suppliers	4.04		2.69	3.35	-0.66
Frequency of communication	4.01	++	2.92	3.56	-0.64
Transparency of projects and purchases	3.98	++	2.97	3.18	-0.21
Effective, meaningful performance measures	3.97		3.08	3.36	-0.28
Clear mission and statement	3.93		3.46	3.47	-0.01
Consistency of messages/measures	3.93	++	2.93	3.36	-0.43
Risk sharing	3.80	+	2.62	3.07	-0.45
Interoperability	3.79	++	2.75	3.12	-0.37
Programs for supplier improvement (performance)	3.77	++	2.91	3.12	-0.21
Supplier development programs	3.38	++	2.80	2.85	-0.05
	4.04		2.94	3.43	-0.50

Key:

**Green** –  
Performance at  
4.00 or higher

**Yellow** –  
Performance  
between 4.00 and  
3.00

**Red** – Performance  
less than 3.0

**Difference =**  
Navy assessment –  
Private assessment

**Participants asked to assess Branch versus Commercial performance**

# BEING A GOOD CUSTOMER

## THE FOUR PILLARS OF SUCCESS

### Relationship Mgt

- Problem solving
- Conflict resolution
- Clarity of objectives
- Mutual trust and respect
- Mission
- Openness
- Risk sharing
  - Cronbach a=0.87

### Communication Flow

- Performance measurement
- Consistency of message
- Transparency
- Frequency of communication
- Early warning
  - Cronbach a=0.85

### Supplier commitment

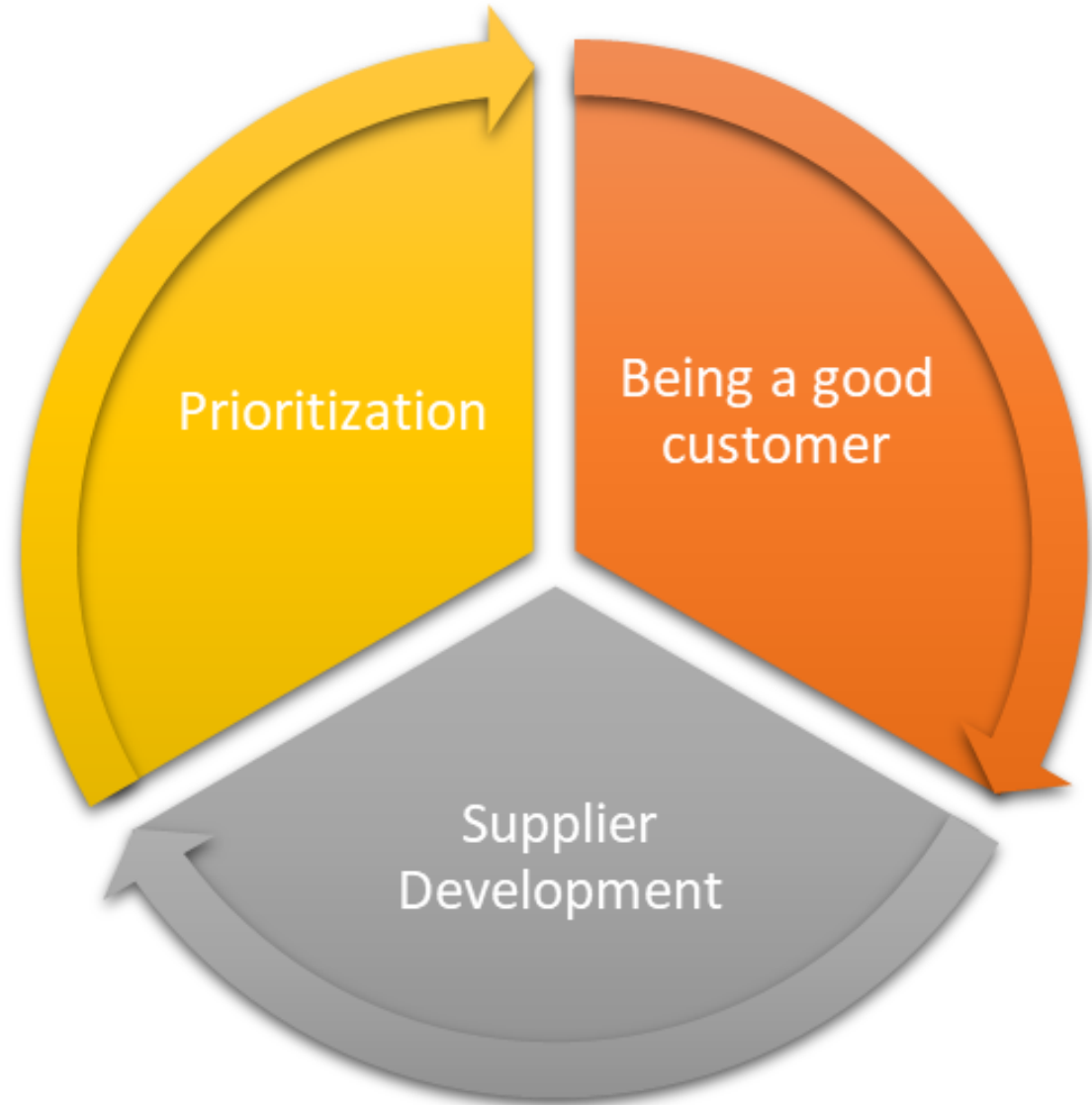
- Supplier development
- Long-term commitment
- Interoperability
- Supplier development (problem driven)
  - Cronbach a=0.81

### Transaction Mgt

- Timely awarding of contracts
- Simple RFP
- Predictable revenue
- Overall ease of doing business
- Profitability
  - Cronbach a=0.74

# FOUNDATIONS OF IMPROVING THE SUPPLY CHAIN

*SOMETHING OLD, SOMETHING NEW!*



## 2020 – THE YEAR OF THE PANDEMIC



- The year that the **COVID-19 Pandemic** struck
- The year of **stockouts**
- The year that we saw the **limitations of the cost-driven supply chain**
- The year that caused us to **rethink the importance of SCM**



BRIEFING ROOM

Administrat

# Executive Order on America's Supply Chains

FEBRUARY 24, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

**Section 1. Policy.** The United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security. Pandemics and other biological threats, cyber-attacks, climate shocks and extreme weather events, terrorist attacks, geopolitical and economic competition, and other conditions can reduce critical manufacturing capacity and the availability and integrity of critical goods, products, and services. Resilient American supply chains will revitalize and rebuild domestic manufacturing capacity, maintain America's competitive edge in research and development, and create well-paying jobs. They will also support small businesses, promote prosperity, advance the fight against climate change, and encourage economic growth in communities of color and economically distressed areas.

More resilient supply chains are secure and diverse – facilitating greater domestic production, a range of supply, built-in redundancies, adequate stockpiles, safe and secure digital networks, and a world-class American manufacturing base and workforce. Moreover, close cooperation on resilient supply chains with allies and partners who share our values will foster collective economic and national security and strengthen the capacity to respond to international disasters and emergencies.

Therefore, it is the policy of my Administration to strengthen the resilience of America's supply chains.

**Sec. 2. Coordination.** The Assistant to the President for National Security Affairs (APNSA) and the Assistant to the President for Economic Policy (APEP) shall coordinate the executive branch actions necessary to implement this order through the interagency process identified in National Security Memorandum 2 of February 4, 2021 (Renewing the National Security Council System). In implementing this order, the heads of agencies should, as appropriate, consult outside stakeholders – such as those in industry, academia, non-governmental organizations, communities, labor unions, and State, local, and Tribal governments – in order to fulfill the policy identified

# THE IMPACT OF COVID-19


## Short-term

- Exposed the weaknesses of the cost-driven supply chain
- Made supply chain failures highly visible to the world
- Short-term actions aimed at insuring the flow of products
- Hidden bankruptcies – how to address


## Long-term


- Re-evaluating the type of supply chain firms want
- Elevation of supply chain management
  - Tactical → Strategic
- Search for new class of managers
- Address the hidden “*weaknesses*” of the supply chains


# THE REASONS


 Lack of buffers


 Lack of alternative suppliers

 Global, interconnected supply chains

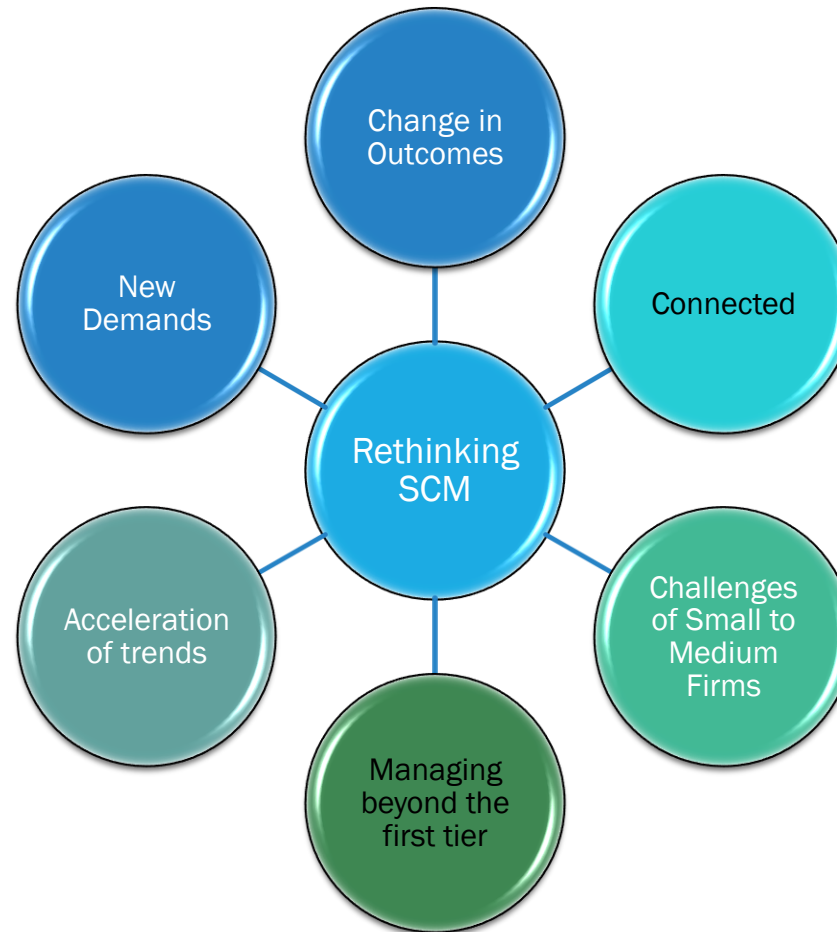
 Nature of the pandemic

 Focus Cost, first and foremost

 Problems with suppliers Small to medium-sized enterprises (SME)

 Supplier movements

# MAJOR CHALLENGES



# RESPONSE

Simplification

Standardization

Partnering with other “experts”

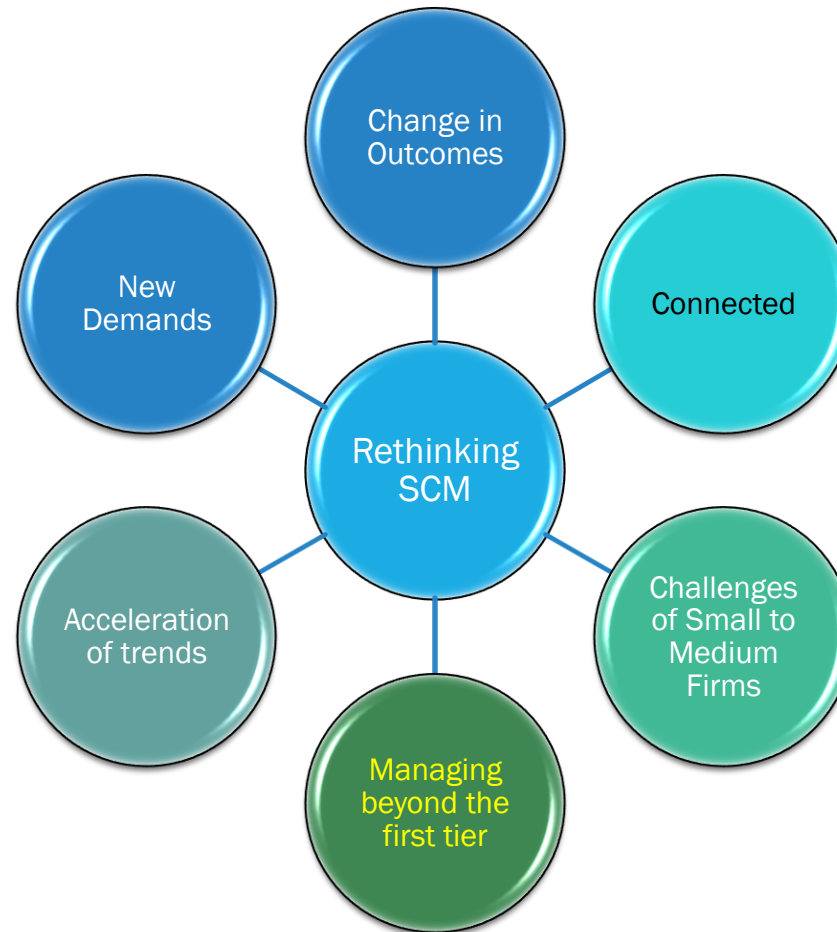
Managing to increase output of certain products in the short-term.

Creativity in the supply chain

- Pizza shops and PPE

YET, these are attacking the symptoms

# MAJOR CHALLENGES

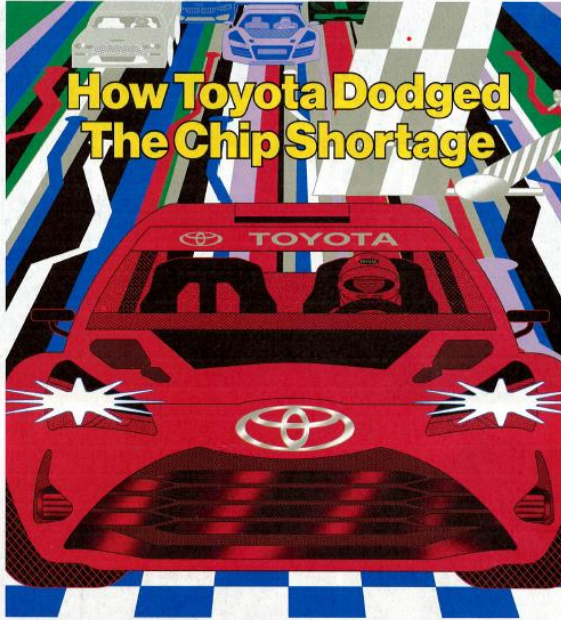


# IS THIS THEORETICAL?

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Bloomberg Businessweek April 12, 2021



## How Toyota Dodged The Chip Shortage

● As rivals shutter plants, the automaker's close monitoring of its supply chain gives it an edge

When the Tohoku earthquake triggered a tsunami that struck Japan's northeastern coastline in March 2011, killing more than 15,000 people, Toyota Motor Corp. spent half a year struggling to get back on its feet. One of the biggest hurdles: Tokyo-based Renesas Electronics Corp., a major producer of chips for the automotive industry, saw its main plant knocked offline for three months after the tsunami, sparking a supply squeeze that rippled through the industry.

As Toyota scrambled to repair its facilities and procure missing parts, it also pored over its supply chain to identify the most at-risk items in the hope of preventing a similar disruption in the future. The automaker came up with a list of about 1,500 parts it deemed necessary to secure alternatives for or to stockpile. The company also put in place an intricate system to monitor the vast network of suppliers that produce those items—and the smaller companies those suppliers buy materials from—to develop an early-warning system for shortages.

A decade later, that deep contingency planning is being put to the test. The world's automakers have for months been grappling with a pandemic-induced shortage of semiconductors

Edited by James E. Ellis

## SOMETHING TO THINK ABOUT?

that threatens to knock about \$60 billion off the industry's global sales this year. On March 19 the situation got even worse, when a fire broke out at a giant Renesas chip plant in Hitachinaka. The damaged factory, which could take at least 100 days to get back to normal production, accounts for about 6% of global automotive semiconductor output, according to Barclays Plc. Toyota is one of Renesas' largest customers.

During the industry crisis this time, however, Toyota's bolstered inventories and steadier control over its supply chain mean it's better positioned than many of its rivals. Toyota is in the process of gauging the extent to which its output will be affected by the fire but for now says it doesn't see an immediate need to halt production.

Toyota President Akio Toyoda addressed the chips shortage last month at a briefing in his capacity as chairman of the Japan Automobile Manufacturers Association. Amid a global dearth of semiconductors, "there are automakers that are really struggling and others that are not scarred as deeply," he said. "What's proven important: very close communication between automakers, chipmakers, and the part suppliers that rely on those chips."

Toyota's ability to carefully manage its supply chains has helped it trudge through not only the chip shortage but also the past year in general, as pandemic-related disruptions threatened the industry's access to everything from fibers used in air bags to the ships needed to transport its vehicles to foreign markets, says Nakanishi Research Institute head Takaki Nakanishi.

Other automakers haven't been so lucky. Suzuki Motor Corp. on April 5 said it's freezing production at two car plants because of chip shortages. Stellantis NV, the parent company of Chrysler and Fiat, on March 26 said it plans to idle five factories in North America starting on March 29 through early to mid-April, while Ford Motor Co. is temporarily shutting its Dearborn, Mich., truck factory. General Motors, Honda, and Nissan have also had rolling stoppages.

"The semiconductor crisis is one that everyone in the world could have avoided," Nissan Chief Operating Officer Ashwani Gupta says. The problem is many automotive companies didn't rigorously manage their supply chains when it comes to Tier 3 or Tier 4 suppliers. "We often don't know the risks down there," he says. Nissan is now looking to improve its digital supply chain management tools. "Every expert is good at backward analysis," Gupta says. "It's harder to look forward. Nissan has learned from this."

The chip shortage sneaked up on many of the world's biggest automakers precisely because it originated several layers below the top, among the chipmakers and foundries that big chip manufacturers outsource production to. Giant carmakers generally deal directly with only their first- and second-tier parts suppliers, which include major companies like Continental AG and Robert Bosch GmbH. Those big parts makers in turn communicate with smaller automotive-chip designers.

Toyota asks its Tier 1 suppliers to input detailed information about their most obscure parts and materials providers in a complex database that it maintains. Using this system to glean information about, say, a single headlight Toyota purchases for one of its cars, it can get information as granular as the names and locations of the companies that make the materials that go into surface treatments used on those headlights' lenses and even the producers of the lubricants used on the rubber pieces in the assembly, Toyota spokeswoman Shiori Hashimoto says.

These lines of communication alerted the company early on that it needed to stockpile chips. "The process of making semiconductors is complex, and the facilities used to create them are specialized," Hashimoto says. "With that in mind we've needed to make sure there's enough stock to cover a period of potential supply disruption."

The auto industry has for decades embraced just-in-time inventory management, wherein many components reach assembly facilities only days or even hours before they're needed. But the Tohoku earthquake's aftermath pushed Toyota to increase flexibility, and the value of inventory Toyota carries has almost doubled since 2011. Speaking at a briefing in February, Toyota Chief Financial Officer Kenta Kon said as part of the company's business continuity plans, it keeps as many as four months of stock for some crucial components such as chips. Toyota didn't expect the semiconductor shortage to disrupt production in the near term, he said.

That show of optimism came just one day after Japanese rivals Honda Motor Co. and Nissan Motor Co. disclosed they expected to sell a cumulative total of 250,000 fewer cars through March, in large part because of their inability to secure enough chips. Toyota, by contrast, is likely to account for only a "minor" share of the roughly 500,000 units estimated to be knocked off Japanese automakers' output amid the shortage, according to a report from Mitsubishi UFJ Morgan Stanley Securities Co.

Toyota appears to be handling the shortages even better than it initially expected. In an ►

# UNDERSTANDING THE CHALLENGE: THE MULTI-TIER SUPPLY CHAIN

Challenges:

- Inter-tier distortion
- Top Mgt distortion
- Deployment distortion
- Supply chain negative externalities

¤	Focal-Firm¤	Tier-1-Supplier¤	Tier-2-Supplier¤	Tier-3-Supplier¤	Tier-4-Supplier¤¤
Top-Mgt¤	¤	¤	¤	¤	¤
Mid-Mgt¤	¤	¤	¤	¤	¤
Low-Mgt¤	¤	¤	¤	¤	¤
Op-Personnel¤	¤	¤	¤	¤	¤

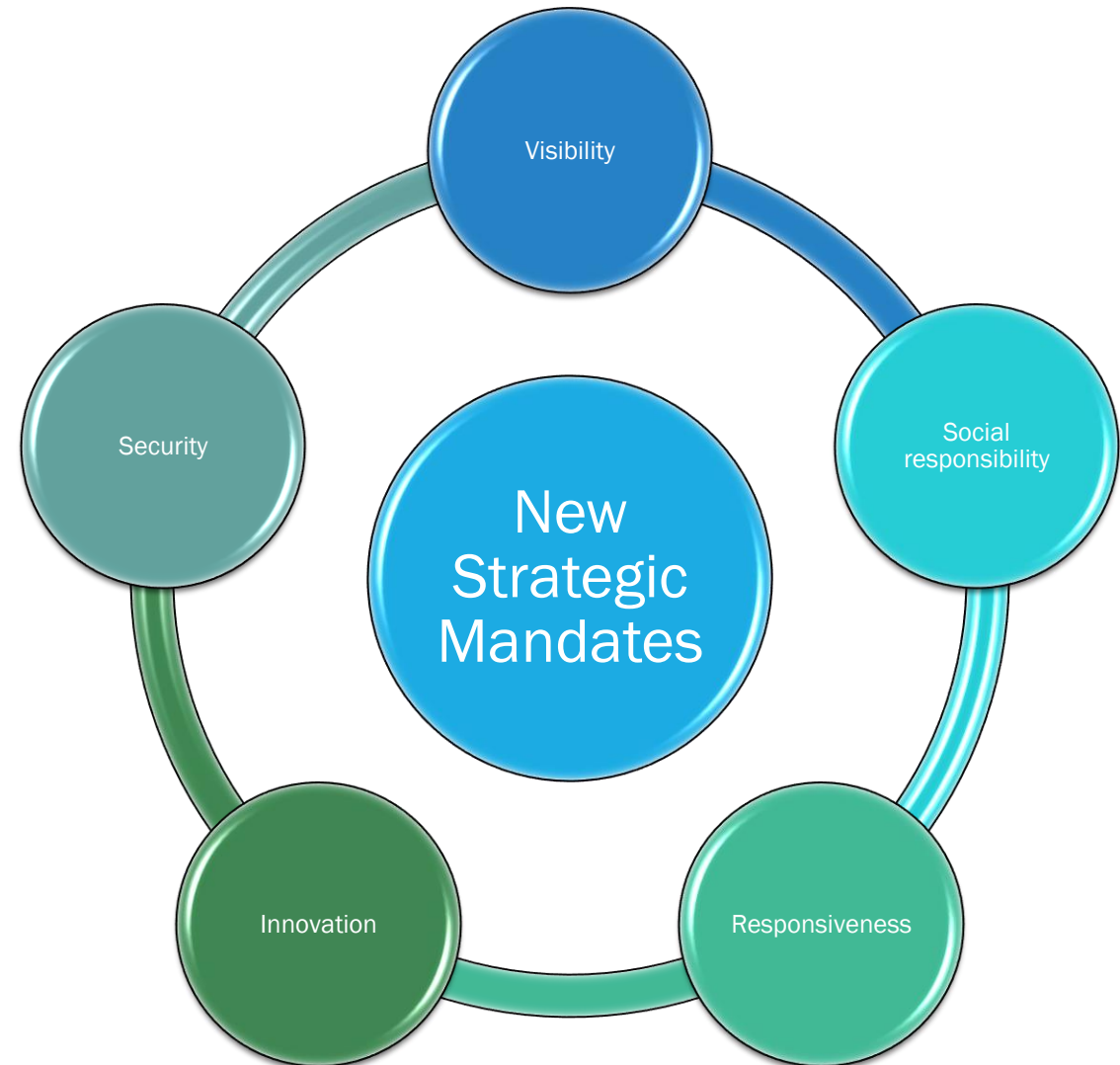


**TO GET TO YOUR LOWER TIER SUPPLIERS, YOU MUST  
WORK WITH YOUR FIRST-TIER SUPPLIER.  
YOU MUST BE SEEN AS BEING A “GOOD” CUSTOMER!**



# BEING A “GOOD” CUSTOMER MATTERS

To achieving the new strategic mandates facing supply chain managers!



## FINAL COMMENTS COMMENTS

- Sometimes people don't want to hear the "truth"
- Project uncovered some new areas for future research
  - Supplier development as it applies to the lower tiers
  - Need to focus more attention on small to medium sized firms
  - Increasing importance of supplier development
  - Now in the final stages of an NSF grant proposal
- New issues are being uncovered
  - Pandemic
  - Changing nature of the supply chain
- Good time to be in supply chain management



# FINAL THOUGHTS



In the midst of chaos, there is  
also opportunity.

~ Sun Tzu

AZ QUOTES

850 x 400

# QUESTIONS

