Workshop Presentation Materials

Submitted by: Australia
BUILDING RESILIENT SUPPLY CHAINS IN APEC

WORKSHOP SLIDES

August 2020
APEC Global Supply Chains Resiliency Survey

Lisa McAuley
CEO
GTPA
APEC Global Supply Chains Resiliency Survey

Business (large and small) and industry will have the opportunity to:

• Raise awareness of the barriers you face in conducting business across borders
• Tell government your views on the most effective solutions in overcoming barriers
• Influence the development of more effective trade policy in promoting connectivity
APEC Global Supply Chains Resiliency Survey

Survey translations to date for SMEs:

- Spanish
- Vietnamese
- Japanese
- Bahasa Indonesian
- Bahasa Malay
- French
- Russian
APEC Global Supply Chains Resiliency Survey

In return GTPA and our partners will provide participants in the survey with access to:

- Bloomberg New Economy Solutions, our project partner, will share outputs and outcomes of this work with participants regarding building a global standards framework to support inclusive trade
- You will gain free use of GTPA’s Global Business Diagnostic Tool, eCommerce Diagnostic Tool, and get access to a network of certified suppliers
- You will be able to apply for certification as a global trade expert (ISO/IEC 17024)
- You will gain access for your organisation to apply for certification as a Globally Trading Business (ISO/IEC 17065) – with free certification for up to 1,000 SMEs
APEC Global Supply Chains Resiliency Survey

Key dates:

- **August- September**: survey in field
- **September- October**: data analysis
- **End October**: presentation of preliminary results to APEC
- **October- November**: further analysis and final report
APEC Global Supply Chains Resiliency Survey

The survey will contribute to a larger goal of the GTPA who is working with a global coalition of partners established by Bloomberg New Economy, to identify actionable solutions for “Building Business Resilience in Global Value Chains 2020-21”, covering MNCs and SMEs participating in GVCs.
Unlock inclusive trade
APEC Global Supply Chains Resiliency Survey

Mr Kevin Klowden
Executive Director
The Milken Institute
Supply Chain Resilience: Key Concepts

Time to Recover (TTR)
- Time it would take for a particular node — a supplier facility, a distribution center, or a transportation hub — to be restored to full functionality after a disruption

Time to Survive (TTS)
- Maximum time that the supply chain can meet demand after a facility disruption

Risk Exposure
- Based on performance impact—both operational (lost production) and financial (lost revenue and profit)—associated with a disruption at each site in the network
- Calculated by simulating response to a disruption at specific sites

Case Study: Ford Motor Company

- Multitier supplier network: long lead times, complex structure, large inventory, components shared across multiple product lines
- Disruptions at 61% of supplier sites would have no impact on profits
- Disruptions at 2% of supplier sites would have a significant negative impact (despite many not previously identified as having high risk exposure)
- Using the model, Ford categorized supplier sites based on requirements for special attention
- Managers learned that risk exposure is highly sensitive to inventory, so Ford began daily monitoring of inventory at high-risk suppliers

Supply Chain Recovery Plans

Step 1: Identify suppliers in affected regions and estimate TTR

Step 2: Estimate demand and estimate TTS

Step 3: Use information to determine when and for how long production should be partially cut or entirely shut down

Step 4: Use sales and operations strategy to define plans for ramping up capacity; allocate inventory only to products that allow you to achieve specific objectives

Step 5: Book logistics capacity as soon as possible

Source: David Simchi-Levi, MIT Sloan Review, April 2020
COVID-19: Lessons Learned

- **Reduce concentration**: Data showed key industries (e.g., automotive, consumer goods, high-tech, life sciences) experienced major slowdowns in quarantined areas (i.e., China, South Korea, and Italy).

- **Reduce reliance on single-use/disposable items**: Strong correlation with product shortages (especially PPE for hospitals).
  - Most did not have protocols to safely clean single-use disposable items.
  - Few took advantage of third-party reprocessing.

- **Use rapid response to support long-term recovery**: Opportunity for bold changes that will help “flatten the curve” due to climate change (as extreme weather events and resource shortages further test supply chain resilience).

Sources: Tom Linton and Bindiya Vakil, Harvard Business Review, March 2020; Yale Office of Sustainability, May 2020
APEC Global Supply Chains Resiliency Survey

Dr Bo MENG
Senior Researcher
Japan External Trade Org
What may happen to GVCs in the post-COVID-19 era?
more regional, more neighbourly, and more digitital

Trade in Value-added (2017) in terms of ICT intermediate goods trade

Source: Bo MENG, et al. (2019, 2020)
The impact of COVID-19 on GDP (relative to baseline GDP)

Source: IDE-JETRO GSM team (Kumagai, e al., 2020, April)
Increasing uncertainty: Challenges vs Opportunities

1. Make GVCs visible, resilient
2. International governance: industry-government-academia
3. Short vs long term responses (investment on risk management, digital economy)

“Uncertainty is the only certainty there is, and knowing how to live with insecurity is the only security”

World Uncertainty Index (left)
World Pandemic Uncertainty Index (right)

How to build more resilient supply chains in APEC? Examples of agility during COVID-19 pandemic

By Angelia Chew
AC Trade Advisory
STRATEGIC BUSINESS DIVERSIFICATIONS AND RESTRUCTURINGS

Trade Resilience (both now & over time)

Private Sector’s Perspective

Trade efficiencies
STRATEGIC BUSINESS DIVERSIFICATIONS AND RESTRUCTURINGS

Private Sector’s Perspective

Scenario Building, Planning & Management
STRATEGIC BUSINESS DIVERSIFICATIONS AND RESTRUCTURINGS

Private Sector’s Perspective

Before:
Internationalising for trade efficiencies

Now & Foreseeable Future:
Internationalising for trade resilience (and efficiencies)
IF YOU WANT TO BE KEPT INFORMED OF OUR FUTURE EVENTS & TRADE INSIGHTS

Scan the QR Code to join our mailing list!
OR
via our firm’s website:

https://www.actradeadvisory.com/contact-us.html
ABOUT US

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AC Trade Advisory provides practical, holistic and sustainable advice and solutions to international trade and customs matters faced by our clients, with a strong focus on Asia.

Our international team of trade & customs practitioners have a wealth of experience, having worked in multinational corporations and reputable professional services firms with international portfolios. With our first-hand knowledge of the dynamic trade and customs landscape, practical know-hows and past working experiences with other functions within companies such as tax, legal and supply chain, we are well-placed to understand our clients’ trade and customs needs and provide real value add to our clients’ business.

https://www.actradeadvisory.com/about-us.html
Bridging rules of origin and global standards to enhance trust in global trade

Mr Brian Staples
Founding Director & CEO
Origin Institute
Cross-Pacific “noodle bowl”
Bridging rules of origin and global standards to enhance trust in global trade

• The essential task
• Target outcomes
• Data before digitization

RULES OF ORIGIN
MAKE ACCESSING THE BENEFITS OF TRADE AGREEMENTS ABOUT AS EASY AS EATING A BOWL OF NOODLES WITH ONLY ONE CHOPSTICK
Bridging rules of origin and global standards to enhance trust in global trade

• Multiplier benefits
• Meeting today’s need
• Knowledge experts + researchers working together

RULES OF ORIGIN
Bridging rules of origin and global standards to enhance trust in global trade

Ms Alisa DiCaprio
Head of Trade and Supply Chain
R3
Agenda

After this talk you’ll understand where blockchain-based trade facilitation efforts are globally, and what you can do to help it scale

- Blockchain in 2020
- Blockchain in 2025
- 3 ways trade policy needs to adjust
Blockchain in 2020

Internal and domestic use cases first
- Ripe.io, ICICI bank, parts tracking
- Regulatory complexity

Global innovation hubs
- Procure-to-Pay (Thailand)
- Interswitch (Nigeria)

Slower move to cloud than expected
- On premises deployments
- API infrastructure
Rise in Consortiums
Blockchain in 2025

What will be fundamentally different

- Payments
  - Replacing payment intermediaries (P2P)
- Competition
  - New collaborative business models
- Ownership
  - Inferable provenance
  - Partial ownership
- Infrastructure
  - What is an original document?

What we need to get there

- Legislative updating
  - Updating of legislation and regulations that delay digital transformation
- Governance
  - Models for new collaboration
- Standards
  - That allow asset transfer between blockchains
- Deep-tier focus
3 policy adjustments to allow blockchain scale for inclusive growth

Participate in global (trade) standards work
  • ICC Digital Standards Initiative
  • US-UK Financial Innovation Partnership

Identify rules that hinder electronic documents
  • Legislating blockchain doesn’t need to be specific to the technology
  • UK Roundtable

Consider data differently from goods
  • Economic transformation is tied to digital transformation
Digitalisation in International Cross-Border Freight and Transportation

Mr Ivan Seow
Co-Founder
Trames Pty Ltd
Standards
InterOperability
Cross Industry
TradeTrust is a digital utility that comprises a set of globally-accepted standards and frameworks that connects governments and businesses to a public blockchain to enable trusted interoperability and exchanges of electronic trade documents across digital platforms.

4 Key Components of TradeTrust

1. Legal Harmonisation
   
   Provide legal validity for electronic negotiable documents through compliance to MLETR

2. Standards Development
   
   Develop international standards that TradeTrust complies to

3. Accreditation Structure
   
   Certify technical solutions meet the requirements of the law

4. Software Components
   
   A set of open-source software code that can easily integrate backend solutions to the TradeTrust network
The International Cross-Border Trade consists of many different stakeholders, working in their own silos

- Fragmented Eco-system With Multiple Systems
- Highly Manual, Paper-Based Processes
- High Shipping Administration Costs
To mitigate this, we put everyone on the same page – Dedicated Freight EcoSystem to gel and align stakeholders

- Transparent
  - Permissioned
  - Real-time Shipping Events
  - Freight Analytics

- Collaborative
  - Freight Management
  - Automated Pre-Alerts
  - Shared Document Repository
  - Dynamic Chat

- Trusted
  - Digital Equivalence
  - Authenticity
  - Provenance and Auditability
Global Supply Chains

Mr Ashish Gadnis
Co-founder / CEO
BanQu
5 Points of pain in global supply chains today: Revenue, cost & Covid reality

1. High cost of sourcing and lack of visibility into quality of raw materials in the supply chain
2. Lack of linkages between consumer sales growth and sustainable sourcing
3. Lack of cost-effective recycling programs and related loss of consumer loyalty / revenue
4. Lack of end-to-end Know Your “Farmer / Worker---TO--Recycler---TO---Consumer”
5. Potential fraud in Covid-19 supplies/ vaccine distribution, payment, rebates and stock-outs

BanQu, Inc. www.banqu.co Minneapolis – Austin – Johannesburg
Fractured supply chains =
Loss of revenue, high sourcing costs & higher risk of fraud

BanQu, Inc. www.banqu.co Minneapolis – Austin – Johannesburg
BanQu Supply Chain Platform
Streamlined to increase sales, reduce costs & reduce fraud

Last Mile Farmer / Worker

First Mile SMEs/ Consumers

Brand

Aggregator

Warehouse

Franchise / Retail

Collector

Waste Picker / Recycler

Current ERP

Buyer or Aggregator

Mill or Warehouse

BanQu, Inc. www.banqu.co Minneapolis – Austin – Johannesburg
Impact

- Increase (10-15%) in channel sales for given product category
- Decrease (10-15%) in cost of supply chain for given sourcing category
- Meet compliance requirements: labor, wage and environmental transparency
- UN SDGs mapper to 6 KPIs
- Increase in brand & social impact equity
- Ensure post-covid supply chains are resilient

- Equitable distribution of covid-19 vaccines in poor economies

Platform Differentiators

- Industry standard SaaS platform deployed in 1-2 weeks
- Annual subscription fee
- Non-crypto blockchain: device, OS and browser agnostic
- Core transactions delivered via SMS phone
- Open API integration to ERP, POS, Mobile Money etc.

BanQu, Inc. [www.banqu.co](http://www.banqu.co) Minneapolis – Austin – Johannesburg
Increasing Transparency in a Post-Covid World

Robert Handfield, PhD
Bank of America University Distinguished Professor of Supply Chain Management
Executive Director Supply Chain Resource Cooperative
North Carolina State University
Raleigh, NC, USA
The changing face of global supply chains

Global Value Chain Development Report 2019
World Bank, World Trade Organization
We know that government-imposed lockdowns resulted in downtime across the world, impacting supply chains. How were these resolved?

- 52-week downtime reported in Apr 27 is from one factory in Thailand, which is an outlier.
Begin by Re-thinking Force Majeure Clauses…
Communicate with Suppliers to Ensure Business Continuity…
Seek to Create Visibility Across Supply Tiers
Think More About Supply Chain Immunity, and Less About Resilience
Thank you

Feel free to check out my blog on these topics:

https://scm.ncsu.edu/coronavirus

https://scm.ncsu.edu/scm-articles/article/category/directors-blog

Robert_handfield@ncsu.edu
Systemic Foundations of Global Trade

Dr Ian George
Purpose: Defining true value from both perspectives

Need to define the problem, **not** the solution.
Process: Repeatable practices that make value flow

Purpose
Defines the rules of the game.
Helps people interact effectively.
A foundation for improvement.

Potential Suppliers
Potential Customers
People: Understanding the needs of all key stakeholders

- Creates cultural awareness.
- Fosters trust (over time).
- Encourages network building.
Performance: Measure Purpose, Process and People

Measure progress toward outcomes.

Measure multiple outcomes.

Use measures to anticipate issues.
Global trade is a system of interconnected parts

Potential Suppliers → Purpose → Process → People → Performance → Potential Customers
Thankyou
BUILDING RESILIENT SUPPLY CHAINS IN APEC

- AN FIA PERSPECTIVE ON FOOD SUPPLY CHAIN RESILIENCE

YIFAN JIANG
HEAD OF SCIENCE AND REGULATORY AFFAIRS
FOOD INDUSTRY ASIA
VISION
To build a vibrant food and beverage industry for a healthy and prosperous Asia.

MISSION
To represent the food and beverage industry in Asia – promoting a climate for sustainable growth and serving as a regional knowledge hub for science-based advocacy.

A MULTI-STAKEHOLDER APPROACH
KEY CONSIDERATIONS FOR SUPPLY CHAIN RESILIENCE
- A Food Industry Experience from the Pandemic

01 KEEPING SUPPLY CHAIN OPEN
Lesson learnt from the supply chain disruptions faced as a result of movement control

02 GREATER UNCERTAINTY: THE NEW NORMAL?
Operating under greater uncertainty. Diversification, strategic inventor building, localisation / regionalisation to mitigate risk.

03 CHANGES ON DEMAND SIDE
The changing consumer behavior / expectations. How could businesses respond and capture new opportunity for growth? Surge of E-Commerce.

04 POLICIES TO SUPPORT RESILIENT SUPPLY CHAIN
Promote the use of technology e.g. digitalization, electronic data submission for regulators and customs procedures. Reduce NTBs. Commitment in global / regional trade as key to ensure food security.

www.foodindustry.asia
THANK YOU

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Resiliency and length of supply chains: is it related?

Sébastien Miroudot, OECD

Workshop
Building resilient supply chains in APEC
11-12 August 2020
Average geographic length of supply chains for exported goods (1995-2016)

Source: Miroudot and Nordström, 2020
Average geographic length of supply chains in 2016, by GVC

Source: Miroudot and Nordström, 2020
What part of the value chain can be shortened?

- R&D and design
- Raw materials
- Processed inputs
- Final assembly
- Distribution & marketing
- Services

Each input has its own value chain.

Innovation: clusters and cities

Skills and know-how

Consumers are everywhere, shifting the length across economies

Close to consumers

Location of raw materials depends on geography

Is the discussion only about final assembly and first-tier suppliers?

Other value chains

Skills and know-how

Innovation: clusters and cities

Consumers are everywhere, shifting the length across economies

Close to consumers

Location of raw materials depends on geography

Is the discussion only about final assembly and first-tier suppliers?

Other value chains
Resiliency is not achieved through shorter supply chains but through...

- End-to-end visibility in the value chain
- Risk assessment
- Redundancy
- Flexibility, agility and reactivity
- Co-operation
- … this is how value chains are better connected and more resilient
Breakout group 4: All chained up? Resiliency means short and tightly connected supply chains, or does it?

Building Resilient Supply Chains in APEC and Facilitating GVCs Workshop
(Wednesday 12th August 2020)
Hub and spoke pattern in global trade

- Some economies are very strongly connected but others are less connected (diameter of the circles)
- The distance between economies in the figure is not related to geographical but instead captures “neighborhoods” of closely linked economies
- One APEC economy that is now one of the world’s largest traders has more than doubled its Connectedness score between 1995 and 2009
- Another APEC economy has increased its Connectedness score by about 50%
- An economy that is more highly connected is also more vulnerable to economic shocks. At the same time however, it is also able to recover from them more quickly as activity picks up anywhere else in the network

Source: APEC PSU (2014). Evaluation of Value Chain Connectedness in the APEC Region
CT Improves faster than IT
More complex supply chains: number of stages and economies

IT improves faster than CT
Less complex supply chain: fewer but more polarized stages (in terms of capital and skill-intensity); fewer low-skilled stages

Trade & transportation costs rise
More ‘nearshoring’, regional supply chains

Trade & transportation costs fall
More global sourcing, global supply chains

Source: Global Supply Chains: Why They Emerged, Why They Matter, And Where They Are Going, by Richard Baldwin (2012).
Possible characteristics for a resilient supply chain

1. Robustness: strong enough to withstand normal shocks and changes
2. Agility: ability to quickly recover and return to normal
3. Flexibility: having more options and alternatives during normal times and during recovery
4. Redundancy: to have redundancy or surplus capacity

Shifting Supply Chains in Economic Uncertainty

APEC Supply Chain Resilience Workshop
August 12, 2020

Deborah Elms, elms@asiantradecentre.org
What Now for Supply Chains?

COVID is unleashing supply and demand challenges and hitting all major markets simultaneously.

Unclear how long situation will last, but economic impact severe and sustained.

Firms need to find new sources of competitive advantage.

May include shifting supply chains to new locations, creating shorter chains, additional sources of supply, more resilience.
Global Economic Shifts Represent Risk and Opportunity for Firms Trading in the Region

Risks for Companies

- Fluctuating outputs
- Loss of Competitiveness
- Declining Margins
- Uncertain long-term strategy
- Higher Tariff Costs

New Growth Opportunities

- Effective Short-Term Mitigation Actions
- Increased Market Share and Competitive Advantage
- Optimize FTA Savings
- Improved Market Access
- Higher Supply Chain Efficiency

Now is the perfect opportunity to assess production processes and build a resilient supply chain capable of resisting, absorbing, recovering, adapting and growing in an increasingly complex economic and regulatory environment
Finding a Competitive Edge

Coming out of COVID, firms need to search harder for a competitive edge

One key solution: Using various free trade agreements (FTAs)

Why?

- Newest generation of FTAs provide wide range of benefits
- Can reduce costs
- Lowered uncertainty and risk
- Many competitors may not be able to leverage FTA benefits (or may be unaware of opportunity)

FTA benefits not granted automatically

- Firms need to be aware of options and prepare to capitalize
- FTAs do not care where you are headquartered or pay taxes—only that your firm follows the rules of the agreement
What are FTAs?

FTA duty reductions and trade facilitation benefits can reduce trade compliance and tariff duty costs, increase supply chain resilience and flexibility, and open opportunities to new sourcing and distribution markets.

FTAs are agreements that reduce trade barriers between two or more economies. Each FTA gives benefits that non-members will not get. Such benefits include:

- Lower import duties (perhaps duty-free or tariff-free treatment)
- Lower barriers for the provision of cross-border services
- Reduction of trade compliance costs by
  - Streamlining customs documentation requirements
  - Allowing the use of Advanced Rulings
- Facilitate faster custom clearance, reducing delivery time for import and export
- May contain simpler rules to address standards and conformity assessment (testing) requirements.
How to develop a regional FTA strategy that maximizes duty savings and minimizes trade compliance costs?

1. Strategic diagnosis of regional supply chain structure and management systems and products across priority markets.

1. Model potential FTA cost savings based on sourcing, manufacturing and distribution product variables.

1. Assess product FTA eligibility based on customs valuation methodology, HS tariff classification, ROO and COO Requirements.

1. Develop FTA optimization and trade compliance strategies based on potential savings and system requirements.

1. Monitor and respond proactively to the impacts of protectionist measures and the implementation of new FTAs.
Replicating FTA Benefits

Not every economy can/will be part of an FTA

Makes it even more urgent that governments think hard about how to drive competitiveness for firms:

Lower import duties and eliminate non-tariff barriers to trade

Lower barriers for the provision of cross-border services

Reduction of trade compliance costs by
  Streamlining customs documentation requirements
  Allowing the use of Advanced Rulings

Facilitate faster custom clearance, reducing delivery time for import and export

Simpler rules to address standards and conformity assessment (testing) requirements

Ensure that payments, especially cross-border digital payments, work easily
The Asian Trade Centre (ATC) is the premier regional thought leader, advocate and educator for trade in the Asia Pacific region and serves as the resource for trade-related activities in Asia.

- Strategic, creative thinking for policy and regulatory challenges.
- Solutions for vexing trade problems
- Practical advice and suggestions for improving bottom line performance
- Sensible input to craft modern trade agendas

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Healthy supply chains: Government supports to keep activities floating in Indonesia

Ibrahim Kholilul Rohman, Ph.D
Head of Samudera Indonesia Research Initiatives
Samudera Indonesia
As an archipelago economy, the ocean freights in Indonesia are generally expensive.
THC Origin 18%

Ocean Freight 16%

THC Destination + Warehouse 48%

Delivery Trucking 12%

Kuala Tanjung – Jakarta
(Logistics & Shipping)

How goods are transported?
Covid-19 brought new challenges

**Decision to stay or to quit**

- Demand and price of commodities
- Vertical and horizontal integrations
- Bunkers and oil prices

**Chart:**
Idle containership fleet, % of total by month

*Source: Drewry*
Government interventions

- Financing schemes: rescheduling, interest negotiation
- Exchange rates stability due to the mismatch between revenue and cost (repairs and capital expenditure)
- Fiscal stimulus (corporate tax)
- Supports on manufacturing industry to increase the volume
Can we better anticipate and respond to the needs of businesses working in global supply chains?

Dr Tomás Quesada
VP Research and Trade Policy, GTPA
Global supply chains’ growing complexity:

• Managing global supply chains today requires a series of legal, political, economic, environmental, ethical and cultural considerations.

• A more comprehensive set of skills to anticipate change and to adapt to change in an agile way.

• Megatrends in trade trigger microtrends in businesses.
Three ways to better anticipate and respond to the needs of businesses working in global supply chains:

1. By enhancing the quantity and quality of information between businesses and between businesses and governments.

   • Communication between buyers and suppliers (digitization and transparency).
   
   • Sharing information with governments is crucial, for which continuous surveys are necessary.
   
   • Industry organisations can play a fundamental role in surveying human capital and skills shortages.
   
   • The APEC Global Supply Chains Resiliency Survey can be accessed now.
2. By bringing large corporations and small businesses together with governments.
   - Information sharing from large and small businesses tend to occur just one way with the government, instead of trilaterally.
   - Large businesses can learn from SMEs and vice versa.
   - More inclusive trade.

3. By enhancing cooperation amongst economies.
   - Relevance of the APEC forum to build more resilient supply chains.
   - Valuable tools and resources accessible for emerging economies.
   - Cooperation will be a key element for building global supply chain resilience and for sustaining economic recovery efforts.
With the support of project partners