Key Learnings from 2019 McMaster Forum Process

MITL FORUM – JUNE 17, 2020
PRESENTED BY: MARK FERGUSON
2019 PROCESS FOR HAMILTON-NIAGARA

• 3 pillars emphasized (data, infrastructure, policy) in relation to supply chains
• Other key themes: agri-foods, e-commerce and export diversification
• 24 organizations interviewed in early 2019
  • 9 shippers
  • 5 carriers/3PL
  • 3 “Hub” Organizations
  • 4 government
  • 3 associations
• March 27th, 2019 Forum event at McMaster
• Release of final materials in late April
PRIMARY ISSUES EMERGING

• Concern about high costs in the supply chain
• Shortages (drivers, pilots) and dependencies with regulatory
• Congestion
  • Road (major highway, regional and local)
  • Rail for some (scarce railcars)
• Concern about dated/insufficient infrastructure on different fronts
• Border: flow of information sometimes lagging the flow of goods
• Tight markets for distribution and fulfilment space
KEY TAKEAWAYS

• The need to focus on collaboration and the fostering of a collaborative environment
• An integrated and multi-modal focus and strategic orientation
• Education on several topics:
  • Supply chain careers
  • Exporting
  • Value of infrastructure

• Finding ways to fund the planning process for new infrastructure
• Enhancing SME development via e-commerce, exporting and export diversification
• Harnessing emerging technology and the power of data and data sharing
Better Understanding the Supply Chains of Niagara Region Firms

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OUTLINE

• Findings

• Traits of firms and freight movements they originate

• Supply Chain Delays/Stresses

• Costs in the Supply Chain

• Outsourcing and its Relevance

• Exporting and Export Diversification

• Evaluation of Select Improvements for Supply Chains
BACKGROUND

Exploring Goods Movement and Export Diversification for Niagara Region Firms

• Extensive, wide-ranging on-line survey instrument to gather information on many supply chain aspects (collaborating with Niagara Region)

• Associated report (mitl.mcmaster.ca)

• Niagara region firms that originate shipments/goods movement

• 103 complete responses and 98 partial responses (Pre-COVID)

• Median completion time 30 minutes
MAIN FINDINGS

1. High Costs
Logistics elements emerge as a significant cost of doing business and worry is expressed about high levels of these costs in the supply chain.

2. Traffic
Traffic Congestion (especially in the GTA) is rated as the most important area for improvement but firms are opposed to “pricing” solutions.

3. International Connections
Niagara Firms more internationalized on the sourcing side than on the revenue side but a lesser difference for manufacturing.

4. Outsourcing
Along with ecommerce adoption, outsourcing logistics appears as a strong differentiating variable. Firms that master it appear more accomplished.

5. Export Diversification
Those that have done ED are more optimistic about it and have a higher opinion of what it can do for a firm.

6. Intangibles
SMEs are prevalent and may rely on a few key leaders. Ambition and momentum matter in developing and extending supply chains.
LARGELY SME ORIENTED FIRMS
PRODUCT LINES AND SUPPLIERS

Number of Product SKUs (N=194)

Total Number of Supplier Firms (N=169)

Number of Export SKU's (N=173)
FREQUENCY OF OUTBOUND & INBOUND MOVEMENTS

Best Description of Frequency of Outbound Movements by Mode

- Marine
- Air
- Rail
- Truck

Best Description of Frequency of Inbound Movements by Mode

- Marine
- Air
- Rail
- Truck

Daily  Weekly  Monthly  Annually  Never
### RANKING OF DELAY TYPES

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<tr>
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*On average, does your firm expect to spend more than 30 minutes to cross the Canada/U.S. Border?*
RANKING OF STRESSES ON THE SUPPLY CHAIN

Supply Chain costs are expensive and on the rise

There are far too many restrictive regulations and too much red tape

It is getting harder to meet the rising expectations of our customers

There is an infrastructure deficit in Ontario relative to other jurisdictions/countries

The supply chain lacks capacity

There is a lack of redundancy in the regional transport system

The supply chain lacks visibility - we lose track of goods
LOGISTICS COST ELEMENTS

Qualitative assessment of expenditures on transportation services

- Less-than-truckload Services
- Truckload (Full Truck) Services
- Operation of your private fleet
- Air Freight/Parcel Delivery Services
- Marine Services
- Rail Services (Carload + Intermodal)
A separate multivariate analysis by MITL on Niagara data shows that appreciation of 3PL value-added is linked positively to openness to emerging autonomous technologies: Adoption via Outsourcing.
GEOGRAPHICAL PATTERNS OF REVENUES & INPUT EXPENDITURES

Where Outputs Go

Revenue % Distribution by Firm Sector (N=162)

- Manufacturing
- Wholesaling
- Agricultural/Primary

Where Inputs Come From

Input Expenditures % Distribution by Firm Sector (N=150)

- Manufacturing
- Wholesaling
- Agricultural/Primary

Niagara Region | Rest of Ontario | Other Provinces | United States | Other International
TOP RANKED EXPORT AND IMPORT COUNTRIES FOR NIAGARA FIRMS

Mentions as Top-Ranked Export Destination (N=78)

- United States 80%
- China 10%
- Other 10%

Mentions as Top-Ranked Importing Source (N=95)

- United States 63%
- China 15%
- Germany 3%
- Netherlands 5%
- Other 7%
- Italy 2%
- Mexico 2%
- United Kingdom 3%
- Other 10%

More diversified on the import side
RANKING OF CHALLENGES TO EXPORTING BEYOND THE UNITED STATES

- Regulatory Impediments
- Large Travel Distances
- Tariffs/Quotas
- Finding local agents, partners and/or legal reps
- The need for significant direct foreign investments
- Culture or Language Differences
- Protection of Intellectual Property
ASSESSMENT OF POTENTIAL TO EXPORT BEYOND THE UNITED STATES

• 1 – “no potential on the horizon”
• 10 – “massive potential and opportunity”
• How do “export diversified” firms differ?
  • More outsourcing
  • Less Private fleets
  • Less “parochial” viewpoints
  • More diversified use of modes
  • More optimism
ASSESSMENT OF POTENTIAL SUPPLY CHAIN RELATED IMPROVEMENTS

- An improvement in Hwy 401 congestion through Toronto
- Cheaper Rates for Trucks on Hwy 407
- Construction of a Mid-Peninsula Highway to complement QEW
- Federal/Provincial funding support for municipal/regional planning
- Reduction of inter-provincial trade barriers
- Formal recognition of Truck Driving as a Skilled Trade
- More efficient environmental assessment processes
- Accelerated and significant new investments in metropolitan rapid transit
- Congestion pricing on major highways for all road users to reduce traffic volumes at peak times
- More supply of industrial/warehouse space in Niagara
THANK YOU

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HTTP://MITL.MCMASTER.CA/
TOP RANKED EXPORT AND IMPORT U.S. STATES FOR NIAGARA FIRMS

Mentions as Top-Ranked Exporting Destination (N=76)

- New York: 46%
- California: 12%
- Other: 13%
- Michigan: 5%
- Ohio: 6%
- New Jersey: 4%
- Massachusetts: 4%
- Oregon: 3%
- Georgia: 3%

Mentions as Top-Ranked Importing Source (N=81)

- California: 16%
- New York: 17%
- Other: 25%
- Florida: 11%
- Pennsylvania: 5%
- Illinois: 5%
- Michigan: 6%
- Alabama: 6%
- Indiana: 9%