

## THE 'NEW NORMAL' FOR POST-PANDEMIC SUPPLY CHAINS

ITLS Webinar, Monday 27 July 2020

### Questions and Answers

#### **Panelist Specific Responses:**

##### **Ben Fahimnia, Professor of Decision Sciences, ITLS**

**In regard to the survey results showing AI in Supply Chain, would you please kindly advise future research opportunities in AI and Supply Chain Big Data Analytics - particularly in a post COVID-19 situation? Are organisations ready for technology advancement in Industry 4.0 era?**

The results will be published in the near future. But we have identified three research categories of "sensing and interacting", "learning", and "decision making". These categories establish the basis for present and future AI research in SCM. "Decision making" category is well established, "learning methods" are slowly getting momentum, and "sensing and interacting" is only an emerging area of research.

**Human intuition and data analytics in decision making models, is that human intuition is based on individual experience, background in that area, exposure to variety of experiences. Does that mean human intuition can be modelled in coming days?**

Intuition can be trained/guided for more effective and informed decision making. We need to incorporate intuition in our decision tools, but intuition needs to be directed/guided based on the individual's background and personality traits.

**How can the industry and government direct policy so we can handle exceptional events such as COVID-19? What recommendations would you have to build in better resilience?**

Unfortunately, policy decisions are not always informed by research. Policy and infrastructure decisions can only be effective if scenario-based analysis is conducted at the national level to understand where across our supply chains investments need to be made to help boost our robustness to disruptions like COVID-19. We need cohesive unified efforts that brings together policymakers, practitioners and academic researchers to identify strategies that can benefit our industry at large.

**On a macro level, would the pandemic lead to a higher local and inward-looking approach and will this lead to a rise in Australian manufacturing?**

I hope so. Since the early days of this pandemic, manufacturing supply chains have been actively looking for alternate sources of supply. Our supply chains have learnt to move from global outsourcing to a balance between globalisation and regionalisation. Covid-19 will not be the last disruption of this type – whether human-made or through natural disasters – diversified supply base is essential to deal with supply disruptions in the future. And, of course, that implies more investment in local manufacturing in the long term.

**Hemandra Maharaj, Transport Commercial Manager, Metcash Trading Limited**

**Is Metcash seeing any evidence of consumers preferring more locally sourced products vs. international and implicitly supporting some premium costs associated with locally produced?**

We have not seen any major evidence of this. Consumers are looking for continuity of supply especially in relation to essentials like flour, sugar etc. Number of the key essential items are already produced locally. Premium prices have been driven by availability of products during the peak of panic buying. The market is settling down.

**Do you think Vertical Integration should be adopted as a strategy for shipping companies in order for them to gain competitive advantage or improve efficiency, given the COVID pandemic scenario?**

In the last two to three years international freight has seen significant consolidation of shipping companies. Due to the highly volatile nature of freight rates, shipping lines have been exploring more stable revenue streams for some time now. Automation, digitisation, terminals, value added services, logistics and services are just some of the features now being integrated by shipping lines. CMA CGM's recent acquisition of Ceva, Maersk's continued participation in terminal and logistics service and Coso's renewed focus on Customer service through digitisation and automation all illustrate a shift from traditional blue-water revenue streams. Given the pandemic until international trade settles it is difficult to see further integration.

**During the pandemic, with goods in short supply, did you need to change the way you allocated goods? If so, what were the rules you applied?**

Like other major retailers, we had to manage allocation based on stock availability from our suppliers. Our National Replen team in allocating stock had to monitor the following; supplier allocation for Metcash, demand in each state and distribution centre (DC) distance from supplier location. Due to product availability varying each day, there was no 'golden rule' but part of the decision was based on ensuring that DC's had at least 3 to 4 days stock coverage.

**What are some of Metcash's treatments and management on the stock ordered prior to the pandemic that are of a low demand? Especially for suppliers who already have stock produced as per forecast and not having orders placed for these now.**

Forecast reflects nature of the product and thus, low demand products are not generally ordered in bulk. Therefore, this does not put additional pressure on suppliers. From an imports perspective, products that are managed by our International Supply team on FOB or Ex Works terms, were ordered and shipped as committed. In addition, our slow-moving lines (stock that are of a low demand), is generally channeled via our National Distribution Centre in Melbourne. We can hold stock there and feed our mega DC's as and when the stock is required. Throughout the pandemic Metcash worked collaboratively with our suppliers and in instances where receipt of stock had to be delayed, suppliers were willing to support us by holding stock. For products that were in high demand during the pandemic and now are of a low demand, we are working with suppliers to clear the stock through promotional activities.

**Kathleen Walacavage, Project Planner / Supply Chain Coordinator, Vanderlande**

How many freight forwarder companies would you recommend? One to utilise price leverage or more to mitigate risk?

It is important to build a strong relationship with perhaps multiple forwarders. When the relationship is there, the forwarders still need to provide competitive quotes to win the project. It is a good idea to

have another forwarder that is able to mitigate risk and will go the extra mile for you as a valued customer as a fall back. If you have multiple forwarders that are within your quoting pool, but the forwarders know you also aren't the same time asking every Tom, Dick and Harry for a quote for forwarding, you will start to build a successful relationship with the forwarders. This changes depending on how many shipping containers, LCL or Air shipments you are bringing in per year as to how many parties should be in your forwarding pool.

Also, if you were bringing in perishable goods and had a very reliable forwarder that went the extra mile, has good technology in place for reporting delays and overviews of your goods. Then you would evaluate whether the price point on the forwarding is the most important point or not. As with goods coming in Refrigerated or perishable, the business model for what your business needs are, will change.

Are you able to estimate what % cost increase you are absorbing by not consolidating your spend with one supplier in order to offset the no supply/bottleneck risk?

The suppliers although may only be handling a small part of one specification for one project, overall as we are a global company and using these suppliers for many other goods, the percentage regarding supplier cost is only a percent or two increase.

These get consolidated and sent out to projects or to warehouse for assembly before they go to a project site.

The most percentage that would impact the overall cost in this, would be if you split the supply of one project and are only half filling a shipping container at each country towards project, you waste a lot of unused cargo space.

The costs (on a project) for splitting a supply chain are mostly seen in:

Freight logistics costs

TCO applicable to the goods ex certain country?

Free Trade agreement on which goods it is ad from which country?

Labour costs in supply split country (different for all)

Does Vanderlande have a built-in change management process that constantly reviews the elements of the supply chain and looks for opportunities to improve quality and operational efficiency - or do your systems, policies and procedures have blocked improvement in these difficult times?

Yes, as even outside of COVID, supply agreements, trade agreements, logistics costs and supply bottlenecks are constantly changing. Therefore, there is always improvements and re assessments to be made. This is where the human element comes in where overview these changes and the reliance is less on the technology. Especially during COVID as the situation is continually evolving and no issues are arising every day for all business's, the procedures need to be constantly re-evaluated and assessed on a case by case basis. During a situation like we are seeing in COVID, the focus is not on R&D and improvements of the existing strategy, but more so on forecasting risk management and potential back up plans as the virus moves around the globe.

#### Unspecified Responses:

**Given the current situation, what skills and technologies do companies need to upgrade and have?**

Ben: In my view, the primary changes since 2019 has been the acceleration of digitalisation initiatives and the industry and government awareness of the type and scale of risks we may face. So, I don't really think the skillset requirement have changed dramatically, but the focus and development speed have.

**Hemandra:** A key focus should be around Telematics with emphasis on track and trace, route optimisation and safety and compliance. Within our network, we are seeing requirements from our retail chain around visibility and push reporting.

**What are the key skill sets that will be needed in the future that are in short supply today?**

**Ben:** I tell my students that textbook knowledge is insufficient to secure positions in better-performing organisations. You need a mix of business/management, computer science, applied mathematics, and organisational behaviour (psychology) to be able to tackle supply chain challenges of today. Supply chain management is not multi-disciplinary anymore, it is indeed interdisciplinary in a sense that one person needs to have the base knowledge in all these areas to be able to integrate them with the right mix to tackle various problems.

**Hemandra:** From a transport perspective, one of challenges that the industry is facing is aging population of truck drivers and need to look at ways to encourage people to look at truck driving as a profession. Lot of IP and skill set will be lost as these drivers retire. The question is how we encourage and onboard the next generation of drivers.

**From a "Cheap Labour "perspective, prima-facie the only change one sees is a move away from China to India. Can it be said that then, that nothing has changed fundamentally because every decision is based on the Bottom Line?!**

**Ben:** Moving away from one country to another is not going to solve any problem of supply diversification. Diversified supply base means having supplies in different regions of the world, and a better balance between globalisation and regionalisation (potential for local manufacturing).

**With some companies potentially learning from this pandemic (i.e. detracting from lean supply chains which leverage on freight over higher inventory costs) - do you see a slowdown in the foreseeable future in freight transportation?**

**Ben:** The increasing demand for e-Commerce and online transactions implies increasing freight transport in the mid/long term. But the way international carriers and freight forwarders choose to operate will change in response to rapid technology advancement and the shift toward "sustainably lean" operations.

**Hemandra:** I do not think there will be a slowdown in foreseeable future in freight transportation. We are not seeing any evidence of this at this current time. There is more focus on freight transportation given challenges around infrequent demand. Retailers like Metcash are looking at optimal solutions around transportation and in the future, we could see more consolidation hubs setup which will enable organisations to better manage inventory and freight costs.

**Policymakers involved in international trade like Lighthizer (USA) and Breton (EU) favour a form of reshoring production. Does Australia, with its very high wage environment, have that opportunity?**

**Ben:** It really depends what products/industry we are talking about. Most industries need to maintain a balance between in-house production and off-shoring. For Australian manufacturing to boom again we need the strong support and strategic investments of the government in terms of infrastructural foundation and seed funding for research and development, as well as start-up and entrepreneurial support.

**How much of the current speakers' businesses have been affected by the pandemic? What are the major areas of damage and pain?**

**Ben:** Most of our universities that rely on international students for revenue are now bracing themselves for tough financial times ahead. This includes most Australian universities which have experienced

"internationalisation" in different aspects. Internationalisation implies international student recruitment, exchange and study abroad programs, the prioritisation of international research, and operating campuses in foreign locations. All of these operations are affected by the pandemic.

**Hemandra:** Metcash like other retailers has faced many challenges. What has helped is having a diverse business model. When liquor sales dropped due to closure of pubs, clubs, restaurants our on-premise liquor business was impacted but we were able to deploy resources to other parts where demand was higher. The major pain points for us was availability of products from suppliers to service our retail network and getting products on time. Pandemic saw higher volumes than the Christmas peak and this put a lot of pressure on the transport network. Meaning, there were a lot of frustrated consumers as products were not readily available.

**Question to All - Short to Medium term what is One Thing that Supply Chain companies should do since we are challenged with a pandemic?**

**Ben:** It really depends on the nature of the business, the degree of globalisation, and the type of products/services you offer. My general advises for most businesses have been to (1) invest in redundancies (find out the right degree of redundancy through a scenario-based supply chain analysis), (2) understand and activate alternate sources of supply, (3) contemplate smart/dynamic pricing strategies in response to production disruptions and supply shortage.

**Hemandra:** Supply agility: Organisations need to review their source of supply and explore alternative solutions to ensure adequate stock levels not just in terms of finished goods but raw materials.

**How can we encourage adoption of digital tools and sharing data securely across the trading parties so that access to real-time data & visibility is accessible for everyone?**

**Hemandra:** The pandemic has made more organisation think about adoption of digital tools or enhancing their current systems. Given recent cyber-attacks which involved companies like Toll and Lion Nathan, organisations are obviously working towards having better systems in place for data security. The encouragement has naturally transpired given the recent events.

**"Sustainable lean systems" is an unfortunate term that will get people unnecessarily excited as they might think you are referring to 'sustainability' in the supply chain from an ethical perspective. People in sustainability have no idea of 'business sustainability' often misquoting the idea.**

**Ben:** Note that "Sustainably lean" is different from "sustainable lean". By "sustainably lean" I meant a lean system that can maintain its leanness in the face of disruptions. You can obviously use other terms for this depending on your organizational culture and how people may perceive the term sustainability. In this case, I am referring to economic sustainability or sustainability of the system status.

**COVID is not a new name for an old disease. We all remember the SARS outbreak just a couple of years ago. My question is why did supply chains forget their experience? Could it be due to the lack of focus on learning aspect of supply chain disruption management?**

**Ben:** It's not just that the industry forgets, it's also that the situation changes. The use of AI-based technologies and advanced decision tools (to replace intuition) was not as prevalent in previous disruptions. We learn new lessons in every disruption, but I agree that the baseline concept behind risk management and supply chain enhancement remains unchanged.

**Hemandra:** Supply Chain has been learning as major disruptions occur. What has challenged the supply chain with COVID-19 is the level of panic buying which no one anticipated. In normal circumstances, essential items were readily available. Products that had low or steady sales were in high demand

overnight. We can put the best contingencies in place, but certain things are even beyond the control of manufacturers and retailers.

**Katie:** Companies silo supply chains as a cost centre and the measure of success is built around how much money can be saved; not how you can enable sustainable growth. I think this is why there's such an obsession of efficiency at all costs model. Unless you have heaps of cash and can hold extra inventory it can be very difficult to run a profitable business without running as lean as possible.