## Succeeding within the

# SHIFTING SUPPLY SPACE

**Business service providers are helping the retail industry maximise the efficiency of its supply chains in the new normal and beyond.**

**By Nicholas Rider.**

There's no question that Covid-19 has changed and continues to change the face of retail, from how consumers shop to how retailers operate across their business.

From a supply chain perspective, GS1 Australia Director Freight, Logistics and Industrial Sectors Bonnie Ryan says the pandemic has had "massive impacts".

"Among these, the rise of online shopping has added huge volumes to distribution networks and increased demand on transport as it tries to meet higher volumes of freight, the opening and closing of retail due to persistent journeys in and out of lockdowns have meant that trading hours have been inconsistent, and then there are the increased safety protocols that Covid has incited at all locations where goods are picked up from and where they're delivered to," she said.

According to Universal Robots APAC Regional Director James McKew, Covid-19 has accelerated the need for reshoring, shortened supply chains, and increased competition among manufacturers (and retailers).

"Quality and quantity remain in delicate balance as manufacturers manage – and increase – input and output to meet rising consumer demands," he said. "As travel restrictions remain in place in many countries, consumers are spending their extra money on shopping, and manufacturers can't afford to miss a beat."

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Adding to this discussion, Pollen Consulting Group Partner Sean Mitchell says that, following the pandemic, our new ways of living and working have driven major behavioural changes among consumers in need of choice (SKU growth), convenience, indulgence, immediacy and contactless environment.

"For example, home delivery is moving from being quick and trackable to now include contactless, and click-and-collect has emerged as a major shopping channel and a growth driver for retailers – according to [research company] Forrester, 35 per cent of people using click-and-collect buy additional products," he said.

"In addition, we're more aware of our environmental impact and are looking for products and services that are both ethically sourced and sustainably delivered.

"All this is happening in an environment of international networks becoming choked due to the confluence of shipping rationalisation, reduction in port capacity due to Covid, limited air freight capacity, and surging demand."

**Driving improvements in transport and logistics**

Ms Ryan highlights the importance of transport, which she says has been "the heart of getting goods to consumers in these difficult conditions, and understanding the changes as they happen is a challenge at the

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best of times, let alone in this quite extraordinary environment".

She notes that the National Location Registry, an industry initiative sponsored by the federal Department of Infrastructure, Transport, Regional Development and Communications, has the aim of digitising the way information about physical locations where goods are picked up from and delivered to is managed and shared between location custodians and their transport operators.

"All products in all industries become freight at some point in the process, so understanding the specific parameters of a location where physical transport processes take place is critically important and has been identified as a key element to achieving effective supply chain visibility," Ms Ryan said.

"In keeping with the supply chain efficiency pillar of the National Freight and Supply Chain Strategy, the registry will provide essential data to drive productivity improvements in the transport and logistics industry.

"Industry will have access to reliable and accurate location data, the absence of which currently results in a variety of operational delays and/or failures in the process of physical deliveries of goods. Accurate and up to date location data will provide confidence that deliveries will be carried out as planned and not adversely impacted by unforeseen or unknown site restrictions.

"Truck drivers are always under pressure and there's nothing more stressful than not being able to meet a delivery because the venue closed early that day and you weren't notified. Having forward notification means operations can be better planned and managed to avoid futile delivery attempts that cost time, money and driver wellbeing."

The National Location Registry is being offered as a not-for-profit undertaking with support from the government's National Freight Data Hub initiative (datahub.freightaustralia.gov.au). It will be available free of charge until the beginning of the 2024 financial year to help industry.

A national call to action is in place for location owners across all industry sectors to publish their location data to the registry at nlr.org.au, with assistance available to help them do so.

## Accelerating automation

With competitive pressures, Mr McKew says accelerating automation will allow manufacturers to still run a profitable production line.

"This is where collaborative robots come in," he said. "These are robots that can work safely alongside humans [and they] are proving to be a much-welcomed lifeline for manufacturers. "They improve efficiency and quality and can work safely alongside humans. They offer a great return on investment and are easy to deploy.

"We're also seeing calls for 24/7 production which in countries with high labour rates isn't feasible. Based on this, automation – such as cobots [collaborative robots] – is ideal as they can run 24/7 and can be accessed remotely."

Mr McKew highlights that Universal Robots is attracting great demand for palletising applications.

"We recently introduced the UR10e cobot," he said. "The UR10e will offer an increased payload of 12.5kg, creating new possibilities for applications such as palletising, machine tending, and packaging. The manufacturer's suggested retail price remains unchanged."

Mr McKew points to the competitive advantage of automation, particularly in a pressurised market.

"Stay ahead of the curve, embrace technology – regardless of the size of your company," he advised. "We've worked with companies both big and small. It's never too late or too early to start."

## Managing energy

Energy efficiency and management is another key to remaining competitive, says SMC Corporation ANZ Sales & Marketing Director Craig Sheppard.

"Behind the scenes, every penny counts, and therefore efficiency and cost savings are paramount in setting your business apart from the rest," he said.

"To truly understand the challenges that manufacturers face, we believe that as component manufacturers we need to assist by partnering with our customers on the manufacturing floor. As more pressure is placed on manufacturers to supply retailers and shoppers, every small change helps, whether it's the upgrade of components on an existing system, new systems, industry 4.0 technologies, electric actuators for precision, etc."

Specifically, Mr Sheppard says SMC

Corporation is attracting "greater demand" for energy monitoring and control equipment, as well as "big demand" for electric actuators and robotics, cobotics and associated gripping and actuation technologies.

"Today," he said, "it's all about efficiency and quality."

Mr Sheppard advised retailers: "Work with a trusted and tried supplier to partner with to conduct an energy saving system review or audit, and ensure that you're maximising the efficiency of your production facility."

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**Maximising efficiency, agility and scale with digital**

Vital to the evolving market, says Pollen's Mr Mitchell, is the need for all players (from manufacturers to distributors to retailers) to be cost efficient, agile and rapidly scalable. He outlines a number of technologies/solutions:

- **Blockchain.** As retailers and manufacturers make bolder claims regarding ethical and sustainable sourcing, blockchain is growing in popularity as a means of both validating the supply sources as well as driving transaction efficiency across the supply chain.
- **Contactless.** The need for contactless is seeing retail self-checkout evolve to scan-and-go with shoppers using their smartphones as a mobile point of sale.
- **Control towers** – an "exciting tool" to connect all the disparate parties in a supply chain into a single ecosystem to provide real-time visibility.
- **Digitisation** through the internet of things (IOT) is now a cost-effective means to drive efficiency and agility.
- **Cloud computing** is a "powerful platform" to provide rapid scalability.

Pollen is working with several companies using digital twin technology to build a virtual replica of its entire networks, from the whole network down to a particular warehouse or production line.

"This allows [companies] to quickly and cost-effectively model their current world and run multiple scenarios to optimise the layout and flow of everything from existing operations to completely new supply chains," Mr Mitchell said.

"A digital twin quickly identifies and prioritises bottlenecks in the operational efficiency, and we can offer solutions ranging from project managing capital investment and assisting with system selection through to application of 'lean' techniques to provide some early wins."

Pollen is also building real-time visibility and quick scalability through digitising its clients' operations via IOT.

"This is then supported through the design and construction of powerful decision tools that allow our clients to quickly evaluate multiple and complex options," Mr Mitchell said.

He added: "Our recently announced partnership with [real estate consultancy and broker] Colliers also enables us jointly to provide a full property solution to complement our network redesign solution."

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