

The global pandemic may have accelerated a shift in shopping habits in Australia, but a consumerled revolution was already taking place.



Customers now demand timely and convenient delivery options, and retailers know all too well that capabilities in speed and efficiency are the ultimate key to success. Exploring new ways to fulfill orders and get closer to the consumer is absolutely crucial when it comes to gaining a competitive edge – if you can't provide your customers with fast and convenient delivery times, someone else will.

Online shopping data in Australia has revealed the e-commerce boom that started to take shape at the beginning of COVID-19 is still gaining momentum, with Australia Post figures revealing the first week of August was up 157 per cent in Victoria and 90 per cent across the nation for the same period last year. These statistics prompted Christine Holgate, CEO at the company to declare "every day is like Christmas" in the COVID e-commerce era.

This year's peak shopping period is anticipated to be the most challenging in Australia's history as more consumers than ever before will carry out the bulk of their shopping online. This shift in consumer behaviour is here to stay, and 2021 will see e-commerce dominate consumer spending. With this continued rise in demand, it's time to rethink the logistics.

Micro-fulfilment 3



What is micro-fulfilment?

Micro-fulfilment refers to small-scale warehouse facilities in accessible urban locations. Also sometimes referred to as dark stores, hubs or sorter DCs, the strategic advantage is the same day, high speed order fulfilment and close proximity to the end customer.

If you can't provide your customers with fast and convenient delivery times, someone else will. Sometimes micro-fulfilment centres are purpose built, but there is also the opportunity to occupy existing space such as car parks, stockrooms, office buildings or shopping centres. This can already be seen with Amazon being reported to be moving into empty shopping centres in the US to repurpose them into micro-fulfilment centres.

Leading Australian retailers are also already introducing this strategy. Wesfarmers' owned retailer Kmart converted several stores into micro-fulfilment hubs to meet a surge in online orders during the early stages of COVID-19.

Grocery retailer Woolworths entered into an exclusive partnership with US-based Takeoff Technologies last year to build automated micro-fulfilment centres in or next to existing stores and made further commitments to double its online capacity in response to the huge spike in online demand.

The leading grocery retailer also converted three supermarkets in Victoria into online delivery hubs when Melbourne entered stage four lockdown in late July 2020.

Fact

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Achieve
400%
throughput rates

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What are the advantages of micro-fulfilment?

For Nishan Wijemanne, Managing Director at Körber Supply Chain APAC and global leader for AMR Solutions at Körber, micro-fulfilment offers local and mid-tier businesses the opportunity to get ahead and compete with the likes of Amazon.

"Exploring micro-fulfilment options will give any retailer a head start on Amazon penetrating the Australian retail market on a larger scale."

Nishan Wijemanne Managing Director APAC Körber Supply Chain

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Micro-fulfilment offers what Nishan says is a sweet spot for many retailers and e-tailers. The flexibility, agility and low barrier to entry, coupled with throughput rates of 400 per cent plus, is a compelling case for this kind of approach.

With many Australian warehouses and supply chain networks failing to deliver on the e-commerce challenge, the infrastructure currently in place simply does not allow for retailers to pick, pack and deliver in a three-hour window. The beauty of micro-fulfilment is that many retailers already have the real estate in metropolitan areas that will enable them to meet shorter fulfilment windows. The bricks and mortar footprint is already available in locations that are typically near-impossible to find warehouse space in. This provides the perfect opportunity for retailers to meet the increasing consumer demand with faster fulfilment times.

But the benefits do not end at increased fulfilment speeds. With less truck movements in tight city areas, there is efficient and environmental gains to be realised when a parcel only needs to make a 5km trip from an inner-city store instead of coming from an industrial estate on the fringes of the city.

With fulfilment hubs in urban locations, there is also access to more innovative transport options such as the gig economy for delivery. Restaurant delivery partners such as Deliveroo and UberEats have set the bar when it comes to customer service and speed of delivery and retail consumers could be looking at the same experience for any online purchase with micro-fulfilment.

Rethinking current assets and converting them into additional fulfilment capacity to cope with the continuing rise of e-commerce makes business sense. So how do you do it?



Körber Micro-fulfilment

Making micro-fulfilment a reality

Converting a physical store to a microfulfilment centre can be as easy as closing the doors and having all employees complete online orders via radio-frequency units. This is essentially a distribution centre within a store.

Micro-fulfilment offers the opportunity to occupy car parks, scockrooms, office buildings or shopping centres. Micro-fulfilment can range from using existing equipment, to having a voice application to assist with workflow, to optimising picking with technology, all the way up to restructuring the environment and introducing automation.

However, the real efficiency benefits come into play when automation is introduced. Automated Mobile Robots (AMRs) enable goods to be picked much faster and at a much higher accuracy rate, ultimately offering retailers the ability to deliver that premium customer experience.

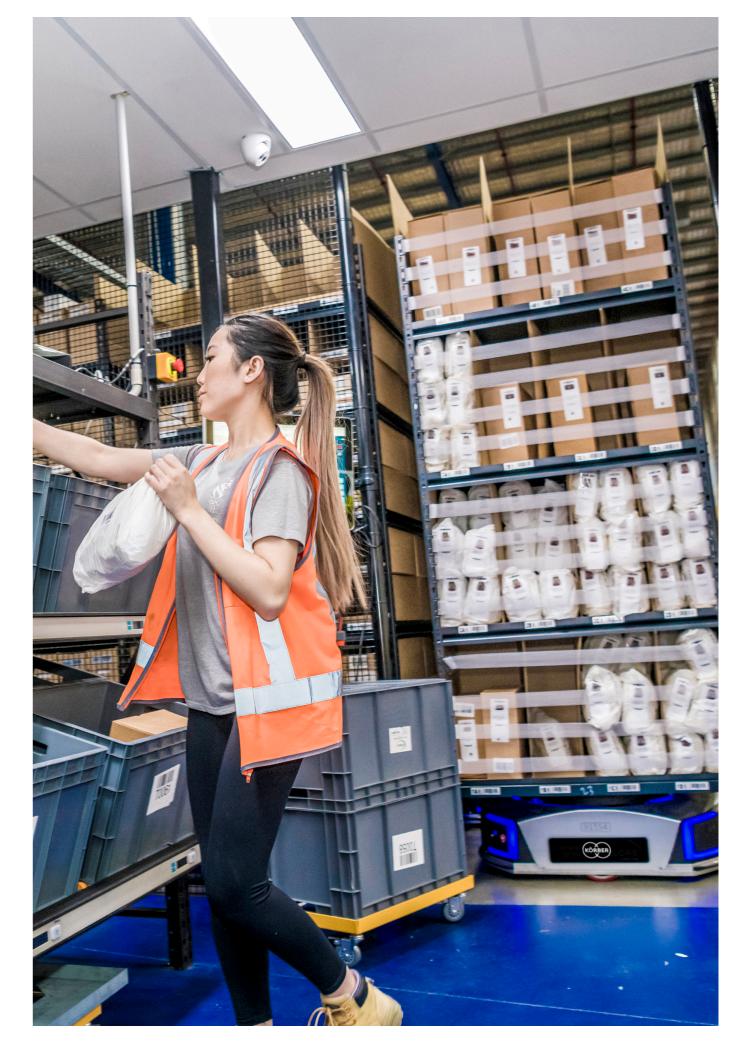
When it comes to adapting existing infrastructure, it's easy with AMR. With many AMRs requiring less than three metres clearance, they make the perfect fit into any pre-existing store space.

Automated solutions in micro-fufilment need to be agile enough to cope with seasonal demands, and flexible enough to fit in non-typical fulfilment environments as they often need to work in unison with a connected retail site. This is where AMR offers significant advantage over fixed automation.

While many preconceptions regard introducing micro-fulfilment as a long and complex task, the Körber Supply Chain team has been developing capabilities in this field for some time. "We realised very early on that we had to have our team and response rate on point so that we can have a micro-fulfilment centre ready with perfectly designed operational workflows in a matter of weeks or days," Ravi Nath, Körber Supply Chain's Head of AMR Solutions ANZ says.

Körber Supply Chain has been offering this kind of fulfilment strategy with some of the region's major retailers for the last three years and have experience in making next-day and same day delivery a reality.

Last mile is now the point of difference.



Körber Micro-fulfilment

Five ways to tackle micro-fulfilment



1. Fulfill in existing environment

This is micro-fulfilment in its simplest form and many grocery retailers are utilising this approach. Employees move around the store with pick carts using mobile devices.

While this is relatively easy to set up and doesn't require much dedicated space, it involves staff moving in and out of aisles pushing carts around and causing congestion in a store that is also used by customers.

If you are experiencing an increase in demand, you then need to rely on additional staff to fulfill orders and many of those staff are then not available to help customers instore. This could lead to poor customer service.



2. Use dedicated space

This approach allows picking staff to be separated from retail floor space, where clients are shopping. This gives a greater flow of traffic and also allows for some ability to adapt to growing demand.

However, there are challenges with regard to holding all inventory, so retailers may need to place their high velocity SKUs in this space and may need to pick from the retail floor to handle remaining SKUs.

This has limitations when it comes to meeting growing online demand.



3. Flexible Goods-to-Person

Using a dedicated space while utilising a higher density storage capacity with Automated Mobile Robots (AMRs). Goods-to-Person technology allows for increased flexibility and allows a much higher volume of inventory in a smaller footprint compared to manual picking shelving. This model also offers a much higher throughput level, with many designs offering approximately 500 picks per hour with only two operators.

There is also the added value of being able to scale up and add more workstations or storage space to cater for growing online demand.

This kind of mobile automation is very quick to implement and can often be done in a matter of weeks, compared to the long lead times of traditional fixed automation.



4. Order-to-Person

Introduce Assisted Picking AMR technology through Order-to-Person. Orders are grouped and sent on robots to the closest operatormanaged zone and are presented. They then continue to the next pick location in that zone.

This is easy to implement into an existing retail footprint. It provides the capability to increase efficiency and fulfill growing online demand. However, this can be difficult to balance the retail floor with the growing demand so that congestion is avoided. Furthermore, specific aisle widths are needed to ensure that operators can pass with adequate clearances.



5. Hybrid model – Goods-to-Person and Order-toPerson

This solution offers ultimate flexibility. Dedicated space is limited allowing higher velocity products to be stored and fulfilled with an AMR Goods-to-Person solution, offering a high throughput. This is then coupled with AMR Order-to-Person solution to travel the existing retail floor space for the remainder of the pick.



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What are you waiting for?

The first step in the journey is to look at your customer profile. Think about whether you serve a specific niche, and if so, ask yourself if it would make sense to introduce a micro-fulfilment centre in that urban area.

It's critical to understand what your current order structure looks like, what that's projected to grow to, your real estate environment and how much space you have to really play with.

Secondly, it's important to understand the cost of picking instore. It's not just the hourly head-count cost, this also has a major impact on your customer experience. You need to ask yourself how engaged are your staff with customers if they are incentivised to not interact with them?

The real efficiency

play when automation

From here, it's best to review your operations, carry out a high-level data analysis and return on investment review.

Then it's about designing and implementing a solution with an implementation partner. It's essential to work with someone who can review and understand your operations, align with your outcomes and design a solution based on your business and projected growth.

Step through the process logically, work closely with your implementation partner to understand whether you need automation or semi-automation to be able to fulfill the needs and requests of your customers.





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Micro-fulfilment provides greater - access to innovative last mile delivery solutions through the gig economy. Micro-fulfilment

What's next?

The retail sector is on the cusp of a major transformation and the last mile is now the point of difference.

When you start to truly embrace new ways of thinking about fulfilment, there are more opportunities than faster fulfilment.

The micro-fulfilment model opens up opportunities to also explore new technologies such as virtual and augmented reality.

"The evolution of these technologies opens up the way to deliver what looks and feels like a traditional in-store shopping experience any place and any time. Will this offer a new twist on the ability for consumers to shop and pick up or engage products quicker, transforming or forcing our supply chains as we know them to pivot or adapt?" asks Körber Supply Chain APAC MD and Körber's Global AMR Solutions Leader Nishan Wijemanne.

The Körber Supply Chain APAC team has a wealth of experience across Australia's retail landscape in delivering fulfilment improvement rates of upwards of 400 per cent, as well as driving some of Australia's largest retailers same-day delivery initiatives.

Get in touch with the team today to find out how you can gain a competitive advantage to meet the rising e-commerce demand that is set to dominate the retail sector of the future.

