



WAREHOUSING AND IT

WHAT IS HAPPENING AND WHERE IS IT HEADING? WE TAKE A LOOK AT WHAT IS HAPPENING WITH WAREHOUSING OPERATIONS AND WHAT WAREHOUSE IT PROFESSIONALS ARE SAYING ABOUT THE FUTURE

Whether you are assessing your warehouse needs from the point-of-view of future operational activities or from the aspect of capital expenditure and return on investment, many experts would agree there are, as a rule, three key areas of consideration.

1. **Increasing visibility of operations.** For example, what staff are doing, where stock is located, cycle times for inbound and outbound items, and associated managing of inventories.
2. **Reducing wastage.** Typically, identifying mis-picks and mis-directions, etc.
3. **Increasing efficiency.** And alongside that, the cost of maintaining the system that inevitably extends to a lowering of costs.

One of the world's leaders in developing equipment for warehouse operations, the

US-based Zebra group, produced a white paper on the development of warehouses for the future. The paper assesses both the present time and the thoughts of warehouse management people out for the next few years, with an emphasis on reality versus vision.

Zebra's expertise is best summarised as equipment that is scalable for that of the novice operators in small operations to the warehouse professionals in the largest FMCG operations. It is interesting to take a look at the white paper to see what has emerged and report on the key aspects.

George Pecchiar of Peacock Bros., one of Zebra's largest Australian partners, explained that the document identified a series of issues:

- The five top alignment opportunities.
- Ensuring alignment of IT operations.
- Streaming the path to flawless fulfilment.
- Inbound handling.
- Storage and inventory.
- Pick and fill.
- Outbound handling.
- Vertical market warehousing.

"The overview suggests that the subject can be summarised as 'growing complexity.'

"Moving a step closer to the detail, the research brings out the issues such as an ability to reduce inventory to free up capital, increasing capacity to keep up with growing demand, and continuing to advance automation to help further lift efficiency and contain labour costs," said Mr Pecchiar.

The emphasis today is clearly one of keeping pace with today's increased demands – both in stockholding and processing of inbound and outbound. This has major ramifications for both operations and IT.

"When Zebra executives talked to key management people at a series of warehouse operations in the US, the two big specifics that emerged were the equipping of staff with technology, and automation processes. These key issues were closely followed by items such as the number of SKU carried, the volume of stock carried, and annual inventory turns," he added

The top five alignment opportunities

One. First is optimising storage and distribution network growth to reduce total landed costs, further improve customer service, and further reduce fulfilment costs. The overall objective here needs to be seeing the warehouse or DC as changing from a cost centre to a centre with the potential to expand, adjust the technical and electronic facilities, and grow in volume and speed of processing.

Two. Next in the top five issues is developing the ability to decrease the impact of labour turnover and decrease training time. It is estimated that training time is currently around 48 hours, and the objective of reducing this time by 44% is reasonable. Simplified operation of electronic devices is a

key part. Advanced technology is good – but simpler advanced technology is better.

Three. The next objective in the list of five is reducing the rate of returns. It is expected that the number of returns is expected to increase substantially. Thus, redesigning returns management systems from one of the least automated processes in the warehouse into one that is far more automated, is vital. Another key objective that sits alongside the upgrade of automation for handling returns is further work to reach the status of 'no fault' outbound order fulfilment.

Four. Moving on to the next key development for the future is increased automation in both inbound and outbound handling. In the US the industry vision is to increase the number of barcoded items received at a warehouse or DC to 84% by 2018. And, alongside this objective, ensuring that supplier/partner processes meet the requirements of and properly utilise the capabilities of GS1, GDSN, ASN and RFID, as well as enable stronger collaboration across the whole supply chain.

Five. And then finally, the matter of linking and integrating warehouse systems. This will result in a strong shift away from home-grown

and basic warehouse management systems to a single source of accurate information. It is estimated that 68% of organisations will move to best available cloud-based systems and increasing collaboration across IT and operations by 2018.

Ensuring IT and operations alignment

To maximise warehouse and DC productivity, the operations and IT management must be addressing the same issues. Although partial alignment between IT and operations is often seen today, there is still, in many instances, a basic technology divide. Surveys in the US are showing that, today, IT people often envisage higher levels of WHS integration with other systems than do operational people.

Streamlining the path to flawless activity

The goal today is flawless fulfilment, and the access is via the technological keys of increased flexibility, automation, integration, and real-time access to the WMS with a purpose-built solution. Order filling and picking remain top priorities for investment due to its relatively high costs and the greater likelihood of errors in this area of activity.



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To learn more about future trends in warehousing and Ecommerce fulfilment, see us present at the **Online Retail Supply Chain Summit** in Melbourne, 29 February – 2 March 2016.

☎ 02 9869 5900
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Inbound handling

Receiving and put-away processes can have a domino effect on virtually every other warehouse processes. Warehouse professionals are trying to solve a number of significant inbound handling issues.

On average, in the US 66% of inbound items in 2013 were barcoded, and the expectation is that by 2018 this figure will have risen to 83% as part of the drive for better inbound processing. Similarly, cross docking utilisation is expected to go from 31% to 45% and RFID is expected to grow from 21% to 38%.

It is expected that strong supplier management programs will result in increasing use of advanced ship notices, GS1 compliant barcodes, and RFID tags.

Storage and inventory

The assessment of trends, in the five-year period out to 2018, showed that warehouse storage and inventory processes were expected to undergo a major shift, moving from still prevalent pen and paper processes to automated and mechanised systems. With new, automated processes being adopted, cycle counts will be performed more often with less effort, and there will be increasing inventory visibility leading to more accurate fulfilment.

Pick and fill

The assessment showed that, on average, the picking and replenishment processes – which account for up to 70% of operating costs in a warehouse – remain the top priority for management to deal with in the technology area. As the industry continues to reduce pick and fill costs and increase worker efficiency as well as productivity, it is turning to processes such as task interleaving, advanced mobile technology – more vehicle-mounted and handheld devices.

Outbound handling

Nothing impacts more negatively on customer satisfaction than inaccurate, damaged goods or late shipment. Equally, the opposite applies.

For warehouse professionals, greater efficiency and accuracy are the two big must-achieve objectives. Powerful mobile and data capture technologies and devices will be the answer in helping link and integrate WMS, ERP, YMS and TMS systems. Latest developments in technology are poised to help warehouse systems achieve the required goals. For example, packing stations can be equipped with mobile wireless computers, scanning and RFID devices as

well as fixed mount kiosk solutions. And more workers will be utilising convenient wearable devices.

Vertical market warehousing

In summary, the key things for management to watch are:

- Ensuring that both IT and operations people are in sync.
- There is a plan to understand changing wireless needs and solutions.
- There is a process to anticipate shifts in process throughout the supply chain.
- There is ongoing evaluation of purpose-built and adaptable technology alternatives.
- Planning for renewed emphasis on risk management.
- Due consideration of the ramifications of more and bigger warehouses.
- There is an ROI model which shows both top-line and bottom-line outcomes.

A series of seminars will be conducted by Peacock Bros. and Zebra throughout 2016 to cover the subjects summarised in this article. They will be a great opportunity for management and operations alike to learn about real solutions from experts within this area. For more information contact Peacock Bros. on 1300 723 282. mhd

