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TALENT MANAGEMENT

Best Practice in Warehousing Operations

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After recently reminiscing about my first job in logistics - and realising how far things have progressed across the past eighteen years - I was prompted to write a report on best practice warehousing operations. In this report I investigate what best practice is, how the top businesses manage success and what sort of influence technology and people have on the industry.

My first memory of working in logistics is turning up at a very large 3PL warehouse in Christchurch, NZ on a cold Monday morning. I was engaged for a couple of weeks work over the university holiday period. It was a very busy first day; lots of walking and heavy lifting, plenty of interesting characters and the day went by in a flash. At 9:30pm that evening we finished loading the last truck and the Supervisor said to me “Good job today student, see you tomorrow at 6:30am”. I thought, “What have I got myself into here?” Within a couple of days, I was driving forklifts, backing the trucks into loading bays and loading them with heavy & fragile items. There was little or no attention given to safety or training.
In today’s world, this kind of behaviour isn’t tolerated, and operations are much more professional. I’ve been speaking with many of the industry’s top operators, consultants and executives to understand what it is to run a best practice warehouse operation in today’s market. I have listed my findings below.

Throughout all my conversations Safety, Productivity and Cost were continually raised. These three pillars seem to be the cornerstone measures for operations to work towards with each one pulling in a different direction, none of which can be judged effectively unless we attach metrics to them. There is a myriad of KPIs and metrics available for managers and - depending how smart your WMS is - you can measure just about any activity in the warehouse.

When it comes to safety there are proactive and reactive measures. Reactive measures tell us what we have achieved, e.g. LTIFR. Proactive measures are geared towards identifying and eliminating injuries which may happen, e.g. hazard reports, near misses, safety walks. I found that those with a strong focus on proactive safety management delivered the best results in this area. Many went on to say that the culture of safety needed to be embedded into the business; it cannot be a top down approach. Safety must be owned by everyone, essentially driven from the ground up. Having a high LTIFR or high workers compensation spend in a business was always a costly and unproductive outcome. The majority agreed that safety if the foundation of any operation.

When considering productivity and costs, this is where the greatest amount of measures come into play. Again, there and many ways of measuring performance and cost in an operation. You can amend your metrics to the industry you are in. For example: in the retail grocery sector stock availability on the shelves is key. Setting up metrics around inventory accuracy and DIFOT or DIFOTA was critical. For some of the larger retailers, they aim for 99.9% accuracy; if stock is unavailable on a shelf it is a missed opportunity for a sale. However, if you are in the spare parts or technical services space, the focus is on accuracy & speed to delivery. For example: if a part is not fit for purpose or is unavailable, it can lead to massive costs in lost production time. I’ve even heard of people taking a flight to deliver a part to a production site, just to keep things running. The cost of this trip was not even considered an issue, as the loss of production time would be much greater to the organisation.

In relation to KPIs there are direct and indirect work rates. Direct work rates are efficiency based, e.g. pick rates, put away rates, dispatch rates etc. Indirect work rates are based on value adds, e.g. inventory accuracy, bin location accuracy etc.
I've noted that many organisations use a combination of these direct measures to create OWRs (Overall Work Rate) which essentially measures how productive each worker is against a range of metrics. This gives an overall score which allows for comparison against targets and co-workers. Many organisations display OWRs or other KPIs on live data screens in the warehouse to help drive visibility and competition amongst the teams.

Cost management is a big factor in any organisation. Again, businesses use different measures to ensure they are tracking against budget. Direct measures like 'cost per carton' and 'cost per pallet' are common (these are derived from using OWRs). Some businesses use ratio costings, e.g. usually if labour costs are kept below 30% of revenue, it is considered a good outcome. 3PLs also use a range of charge options; activity based, cost plus, open book, to name a few. All models have different pros and cons attached.

Another way to maintain costs is to change labour strategy. E.g. a business may run a 3x shift operation and employ 300 staff. Using scenario modelling and trials, the labour can be split up across the 3x shifts to find the highest amount of output for the lowest cost. Penalty rates are applied for afternoon and night shifts and different productivity outcomes are generally displayed on each shift. There is also a limited amount of space for staging and picking alongside a limited supply of MHE at every site, so planning resources for an optimal outcome is a real challenge. Businesses that can track data and report on key metrics are generally leading the way. They can optimise their labour to have the most cost-effective service offering.

An interesting find through my conversations is that a few senior professionals do not focus directly on KPIs. Several people made comment that they can essentially tell if a site is in good shape by just walking around it. Key aspects that came up are around the cleanliness of the warehouse, a lack of trucks lined up in the driveway and docks and how engaging and approachable the staff are. Essentially, if the place is immaculate, uncongested and the people are happy, then the KPIs are looking after themselves. This line of communication led into an interesting discussion around how to build a winning culture. Although KPIs are very important, it's really the people and culture that make the big difference.

A strong team that has been structured correctly is also regarded with the same importance as everything else. This includes attempting to keep absenteeism as close to zero as possible, alongside keeping staff retention as close to 100% as possible. One executive spends up to 50% of his time developing and nurturing their team, continually massaging the team structure. In order to build a stable and winning team, delivering consistent and accurate messages, often, is key. Some communicate through one on one coffee breaks or team lunches periodically to open lines of communication and deliver direct feedback. Others hold site-based information sessions, nights out, Friday BBQs or reward and recognition strategies. Underpinning everything is the consistent availability of training and development. Businesses that can develop their people with more skills and offer them progression into higher positions tended to have the best retention rates and the best service delivery metrics. It also allowed for greater coverage of skills across multiple sections of the warehouse.

Another area I was keen to explore was around reducing waste in the warehouse. Where does waste exist and how do we remove it? Again, it's there is a strong importance in having access to the relevant data because most waste comes from labour inefficacy or lack of utilisation. With better visibility and forecasting, resource planning can be more accurate. Most warehouses will utilise a casual workforce, some more so than others. In fast moving sectors like eCommerce you might get an increase of volume on Mondays - after extensive online shopping over the weekend - and volumes may dramatically decrease across the week. These types of businesses need a high degree of agility and access to trained labour. On the flip side, if there is no planning, you run this risk of paying for high volumes of staff who have nothing to do. Businesses must work out the right ratio of permanent - casual to optimise productivity and reduce costs. They also need to ensure they have the right amount of MHE available for use, to match their staffing numbers. Another highlighted area of waste is the amount of time operators spend walking on the pick path. Dynamic racking is now used to consistently upgrade and optimise bin locations to ensure optimal pick paths are created. One retailer is using AMRs to deliver products to packing stations and the machines will reconfigure their position based on algorithms to optimise their location and reduce traveling times.

This leads into the topic of technology and systems; how important this is for the warehouse and what its being used in the top tier operations. Having a high-quality WMS is critical to any operation wanting to deliver top service. How it integrates with internal and external ERPs/MRPs is critical but also how it interacts with transport carriers and freight management platforms. Businesses with the best IT integration can make real cost savings and deliver strong efficiencies throughout their supply chains. If systems are well integrated and able to track activities accurately, it allows businesses to create extremely useful data on their operations and helps to drive improvement within day to day activities. It also enables strong reporting capability to deliver to their customers; where SLAs and KPIs can be monitored and managed closely. In today's world, this type of dynamic reporting has a huge sway over customer service, particularly if you are outsourcing.

Automation is the other big-ticket item that has become a focal talking point in today's market. The retail and pharmaceutical sectors have been the early adopters in Australia for large automated facilities, but we have since seen 3PL and FMCG businesses follow suit. Australia is not as advanced - globally speaking - when it comes to automation. This has been largely due to our lack of population density and large distances between major centres. However, prices have been getting more competitive and we are seeing more investment come into the market. AMRs and AGVs are now becoming quite popular and there are even options to lease these pieces of equipment, therefore reducing the setup up costs and enabling businesses to better utilise their equipment.

One of the issues around installing an automation solution is the initial setup costs. They can be expensive and - unless businesses have a clear understanding of their future strategy - sometimes it's unclear how long until they see strong ROI. 3PL businesses are rolling the dice by investing into automation with a 'build it and they will come mentality' as many of their customers are seeking 2 – 3 year contract engagements. Businesses that really understand their strategy are most likely to be able to invest and reap the rewards of efficiencies and significant cost savings.

Recently – particularly in the retail sector – we have seen innovation around omni channel distribution. This is where retailers utilise their store network as distribution points for their B2C channel. This model has the capability to deliver B2C home deliveries on the same day as the order was placed. With eCommerce and online ordering becoming increasingly popular – especially during Covid-19 - this distribution strategy has become even more prevalent. Successful omni channel distribution is highly reliant on a robust ERP and WMS, plus a strong S&OP and inventory function that can accurately plan network capability.

I found this topic really interesting and can see the industry really starting to develop, with the advent of technology it's an exciting horizon the world of warehousing and distribution. In Summary if businesses can scope the right metrics, employ and retain quality people and have a shared culture of safety they have a great base. There is no one best practice, only a best fit for every unique operation.

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