

# HOW A SMART WAREHOUSE SAVES MONEY

Left frustrated by inaccurate stock levels or unhappy with the time it takes to deliver customer orders? Looks like a job for a smart WMS. By FRANS KOK.

The market for warehouse management system (WMS) is predicted to expand at a compound annual growth rate of 8.2 per cent across the Americas, Asia-Pacific, Europe, the Middle East and Africa over the next three years, as per a recent research by a leading technology research and advisory company. The key market drivers for WMS include an economic pace that continues to pick up and push companies to spend more on advanced technology, the ongoing need for more streamlining and visibility in the distribution centre, as well as the fact that many existing solutions are ageing and need to be upgraded or replaced.

Other factors include the rapidly changing clients, who demand better service and more information. Thanks to the speed of the Internet available today, clients have become used to getting everything instantly. One cannot ignore that the demand from small- and medium-sized businesses that are adopting WMS solutions to help them improve efficiency and stay competitive in the market is playing an instrumental role.

According to the *Logistics Management 2013 Technology Usage Study*, 50 per cent of logistics operations are currently using WMS — the highest percentage of any supply chain software solution. The survey also revealed how 43 per cent of companies admitted that their use of supply chain software has changed in the past two years. Only 5 per cent said their usage has decreased, while a fairly healthy 23 per cent said that they are currently using more software packages than they were two years ago.

## REDUCE LABOUR

Even though the concept of a warehouse is simple theoretically, the task in reality is complex and enormous, requiring the right mix – whether the people, systems



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or the solutions – to run efficiently. To begin with, it cannot be ignored that a major factor affecting the industry as a whole is the ageing market for warehouse labour, which creates the issue of worker scarcity and consequently increases cost. In labour-intensive industries such as warehousing, staffing is typically the largest single variable cost. Warehousing jobs are physically demanding, thus they are being shunned by young workers.

On top of it, there is always the issue of updating and maintaining data across all sites to ensure not only consistency and accuracy, but also smooth accessibility at all times. In addition, the volume of goods to handle also tends to double. Twice as many outlets may mean wider range of product choices for customers, but it also means longer browsing periods for the staff. The longer the time, the fewer orders they can process.

The challenge with using manual-based stock is that the staff can only search by one particular means, such as the product name or type, which halts productivity and stalls efficiency even longer. Without appropriate systems in place, it becomes almost impossible to track goods effectively. As stock volume starts to go up, manual or paper-based systems simply cannot keep up with the constantly changing status of goods that have been used, sold or returned.

## OPTIMISE SPACE

In today's business environment, warehouses are expensive to operate – the cost of the land, machinery, building, and labour can amount to a significant sum of money, adding to the list of burdens currently shadowing companies. There is a growing requirement for bigger space, but the high cost halts companies from expanding as they wish.



The role of warehouse managers is also becoming more intricate and demanding. They must avoid excess space but on the other hand ensure that the needed space is always available at the time of the arrival of the goods. A shortage of warehouse space at the same time when goods arrive can result in huge financial losses for companies. As an example, among the many industries that rely on automated solutions, retailers are leading the growing trend to embrace automation to transform their warehouse operations and step ahead of the competition.

As customers become increasingly demanding and supply chains increasingly global, the profitability of today's manufacturers and distributors is at risk. They cannot address rising customer expectations and seize new market opportunities with inadequate warehouse operations. These challenges have forced companies to come up with a new solution that can help them save costs while also maintaining, if not improving, their quality level.

One of the ways is through warehouse automation, which provides tools for keeping track of all the actions occurring inside the warehouse. While the traditional functions of a warehouse are common and well known, the more advanced warehouse is an integration of highly evolved automation technologies, making it a core part of the supply chain.

## DON'T ISOLATE YOUR WAREHOUSE

Despite the circumstances, even today, many companies still do not use warehouse management solutions to their full potential. The crucial business area of the warehouses or distribution centres – also



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referred to as the “heart of the supply chain” – is also often isolated from the rest of the supply chain and not fully integrated with operations and systems from other areas such as procurement, dispatch, customs, transport and service providers. Such isolation inevitably results in a loss of transparency and consequently, missed optimisation potentials.

And optimised utilisation of resources, proper inventory management, automation of billing and accurate stocking are just the first steps in reducing costs and improving efficiency within the warehouse. Unfortunately, for many companies, the effort stops there.

With the warehouse as the central hub of the supply chain process, it is important that companies use their warehouse management system along with other agents in the supply chain ecosystem, in order to get the best return on investment.

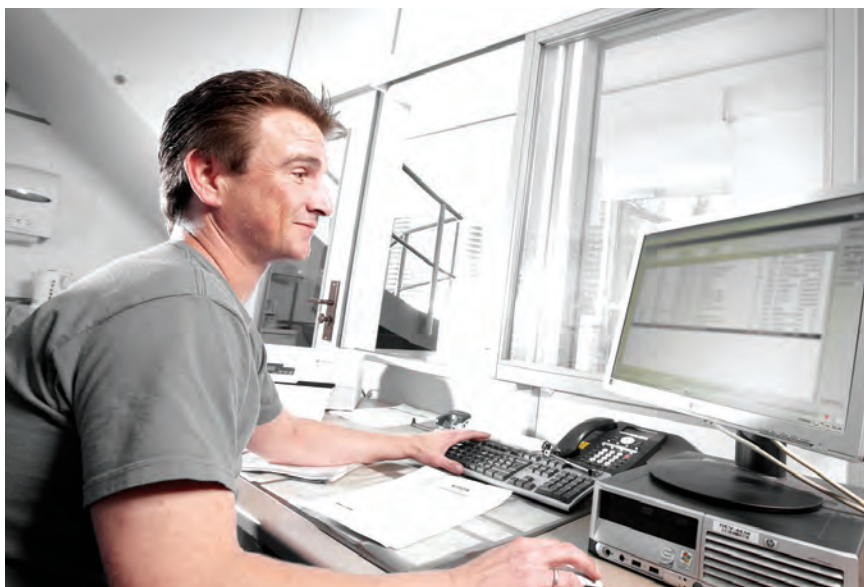
Today's WMS must offer multi-level, multi-site and multi-client inventory management, facilitate different picking strategies and material handling systems, support reliable demand forecasting, and cater for the distribution of store deliveries and online orders alike – to name just a few.

The potential benefits of a WMS system are remarkable. Once an order comes in, the system should be able to prepare the legal guidelines for the export and generate all the barcodes, picking the necessary tickets and transportation documents. Furthermore, the system should be able to calculate the time required for packing orders and assign manpower to oversee the work, based on a master manpower schedule. As a result, companies can adjust their staff requirements accordingly, re-assigning staff to different jobs and departments, and thus resulting in more effective and efficient usage of both cost and resources.

## COMPLETE VISIBILITY

The most powerful part of a WMS is having complete visibility of inventory levels in the warehouse. By tracing what goes in and what goes out on a daily basis, companies will be able to reduce inventory levels, keeping only the minimum amount required in order to respond to emergencies.

A good WMS is able to send immediate notifications to suppliers and carriers when inventory levels are close to falling below the minimum requirement, resulting in a proper continuous flow of goods and fewer bottlenecks. It is vital to have these basic best practices in place before looking at how the business intelligence can be applied to other areas of the supply chain. Aside from offering a better customer experience, an accurate stock knowledge means management can make better business decisions too, as they will be able to identify which representative is selling the most.



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Beyond better mechanical solutions, today's automated warehousing solutions are all about the software. In order to take advantage of the capabilities of the advanced equipment, it is important that the companies first learn new levels of the software itself.

The right software should provide complete visibility of inventory levels in the warehouse and of goods in transit. Full transparency of incoming and outgoing orders enables companies to consolidate and time their transports and reduce inventory levels, keeping only the minimum amount required to respond to emergencies. A good WMS promptly notifies suppliers and carriers when inventory levels are close to falling below the minimum requirement, facilitating a continuous flow of goods and saving money.

Warehouse operators should also look for end-to-end traceability of order items and returns management capabilities as essential functionalities. This is particularly important in case of product recalls, which can quickly lead to warehouse bottlenecks and turn into PR disasters. Powerful WMS solutions offer drill-down options for order tracking and KPI monitoring, e.g. from container level to stock keeping unit level, and collect all applicable progress reports and status messages on one centrally accessible platform.

Returns management adds another complicated process that each warehouse operator must manage next to their core warehousing and distribution operations, often within the same facilities and at a great expense. Not every WMS is able to handle the various returns strategies, keep a full audit trail throughout, and link each item with its original order to trigger related financial actions in the master ERP system.

Another crucial requirement to run a seamless warehouse operation is system integration capability: A WMS should integrate smoothly into a company's existing IT environment and communicate with both internal operations and systems (e.g., procurement, customs, shipping and sales) and external parties (e.g., suppliers, service providers and carriers), leading to transparency and efficient work flows – ideally in real-time. The software should have a modular architecture that provides the functionalities required at the time, with scalability, i.e. the option of expanding as a company's requirements grow. This includes integration of transport as well as global trade management systems, facilitating comprehensive logistics execution, as well as regulatory compliance with customs and global trade procedures.



[ Automated storage and retrieval machines weigh a lot less than aisle trucks ]

The ultimate choice of WMS depends on a company's individual requirements and short-term, mid-term and long-term goals – there is no 'one-size-fits-all' solution. That is why it is crucial that the solution provider offers the right portfolio, experience, and consultative approach to guide through the decision making process. Ideally they should become a proactive partner, offering an outside view and asking the right questions to assist in-house teams to design improved work flows, cut waste and increase efficiency.

In practice, automated warehousing helps a company's entire operation to function much more efficiently with less costly space and effective productivity rates. And because automated warehousing solutions make the most effective use of space, building costs can be kept to a minimum. Significant cost savings are made possible through the need for less land and a smaller building. Automated storage and retrieval machines also physically weigh a lot less than aisle trucks, further reducing construction requirements.

### OPERATE FASTER

Reducing reliance on labour and cost saving has always been the traditional justification for automation in the manufacturing space. Today, there is also an emphasis on making things operate faster. Productivity remains one of the top reasons why more and more companies are now choosing to automate their warehouses, particularly since customers are placing their orders later and later.

Nowadays orders are still accepted beyond the normal working hours, and e-commerce is only enhancing this trend. The later the cut-off times on order, the shorter the lead time on the warehouse

floor. Order picking may account to more than half of warehouse cost, and processing customer orders quickly and precisely also has a direct impact on customer satisfaction and loyalty.

In its benefit to increase productivity, not only does automated warehousing work faster than forklifts and narrow aisle trucks, they can also operate 24 hours a day, seven days a week, keeping products on the move. With automated storage and retrieval machines, the days of delayed process associated with putting away or retrieving pallets from high locations will be long gone.

Seeking not only financial but also productivity returns on any WMS or warehouse automation investment is understandably high on the priority list for any growing company. In an industry where time and space are both sought-after commodities, the pressure to maintain a seamless warehouse operation has stepped to a whole new level, changing the game of the manufacturing industry in general.

Warehouse management systems have a staggering impact on improving supply chain dynamics and performance, and ultimately on realising savings. Today's companies are challenged to possess the ability to anticipate what customers are seeking for, and then bring the product to market before the competition. Investing in the right technology and utilising them are vital in achieving this success. The right WMS can help companies impress potential clients and provide the best possible service and support to the current ones. ■

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