

Role of the warehouse manager

02

Managers today have to do more with less, and get better results from limited resources, more than ever before... A manager's job is to provide the environment where individuals are internally motivated to do the very best job possible, in the very best spirit possible, to make the very best contribution possible.

(BRIAN TRACY)

Introduction

Today's warehouse managers no longer patrol the warehouse in brown coats clutching a clipboard and pencil. They are more likely to be in a suit or corporate uniform, use a personal digital assistant (PDA) and more often than not are seen hunched over a laptop deciphering the latest cost and productivity figures.

This chapter examines the challenges facing today's warehouse manager and the attributes required to deal with them. Each challenge is introduced to the reader and is further examined in detail in the remaining sections of the book.

One of the main challenges for the warehouse manager before we begin to look at the warehouse itself is whether they and their colleagues see themselves as the right person for the job.

Nick Weetman, commenting in *Retail Week* (2009), said:

It is a neglected area. The effort expended on developing warehouse management is not proportionate to the importance of the warehouse as a business... We see a lot of warehouse management where people have just been promoted and don't really understand how to run warehouses. Those (retailers) that do have it in-house need to understand it's a critical part, and retail is just the end of the supply chain.

A recent job description for a distribution centre manager required the following key skills and outlined core accountabilities which are typically sought from today's senior warehouse managers: these included an ability to negotiate, information technology skills, basic finance and business acumen, people management skills and an ability to motivate and lead large numbers of employees through communication and engagement.

These are very much people skills and as Lee Iacocca (1984) said, 'Management is nothing more than motivating other people.'

The job description and the core accountabilities were as follows:

- the provision of a responsive and cost-efficient warehouse that is aligned with the current and long-term requirements of the global business strategy;
- responsibility for the leadership and direction of the warehouse team;
- to ensure that the warehouse is capable of delivering the volume requirements of the business;
- to drive continuous improvement in the cost-efficiency of the operations;
- to set the long-term vision for the warehouse in line with the strategic plan and to ensure that future volumes and customer service requirements can be met;
- to safeguard the human and physical assets employed in the warehouse;
- the management of projects and introduction of new initiatives;
- to maintain strong relationships with suppliers; and
- the development and management of industrial relations within the warehouse environment.

The people aspect is very important and a job description for a distribution centre manager produced by WERC suggested that the manager needs an ability to:

- develop and maintain a productive work team by creating programmes for hiring, training and professional development;
- match the skill and background of personnel to the work required;
- apply sound communication and motivational techniques, create programmes to supervise, counsel and discipline associates; and
- implement an appropriate performance evaluation system for recommending promotions, wage increases and terminations.

The warehouse manager has a number of operational challenges and is also expected to understand and implement company strategy in relation to warehouse activity.

Again we see the trade-offs that the warehouse manager has to deal with. These include cost versus responsiveness, and cost-efficiency versus volume throughput.

It is good to see that safeguarding human assets is included in the list of core accountabilities as this is a common worry for warehouse managers.

Today's manager has to maximize the effective use of his/her operational resources whilst satisfying customer requirements. This can be done effectively through motivating and managing staff effectively. People are a warehouse's most valuable assets and should be used appropriately.

The above job description is reasonably typical of the requirements of a warehouse manager in today's fast-moving economic environment. The expectation is that the manager will achieve high customer service levels but also reduce cost through improved productivity and performance. Added to this is the constraint of lower inventory, reduced customer lead time and the pressure to ensure the safety and security of staff, equipment and stock.

The six basic tenets of warehouse management can be summed up as follows:

- accuracy;
- cost control;
- cleanliness;
- efficiency;
- safety; and
- security.

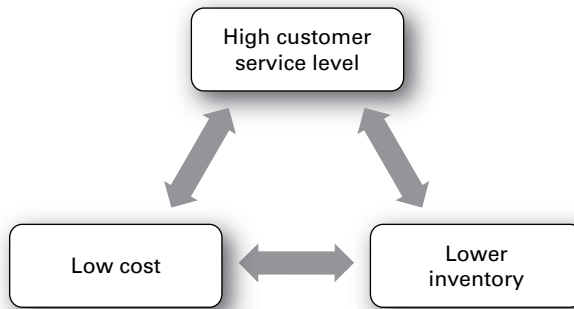
Warehouse trade-offs

Managing trade-offs within the warehouse is fundamental to the role of warehouse manager.

The main trade-offs are shown in Figure 2.1.

Warehouse managers are also expected to recognize and balance other trade-offs within the warehouse, examples of which are as follows:

- increased throughput versus reduction in labour costs;
- storage density versus quicker pallet extraction;
- manual versus automated processes;
- increased pick rates versus accuracy;
- inventory holding costs versus cost of stock outs; and
- speed versus safety.

FIGURE 2.1 Warehouse trade-offs

Today's challenges are many and varied and require additional skills from the warehouse manager.

The next section examines these specific challenges.

The warehouse manager's challenges

Pressure on today's warehouse manager comes from many different directions. These are both internal and external pressures.

A recent survey carried out by Intermec suggested the following:

- Nearly 3,000 hours per year are lost in warehouses and DCs through inefficient processes.
- 80 per cent of managers have been tasked with finding cost savings in existing operations.
- On average managers have been tasked with finding nearly 20 per cent cost savings across their organizations.
- The majority of managers suggested the following areas were most inefficient:
 - inventory control (53 per cent);
 - picking (47 per cent);
 - putaway and replenishment (45 per cent).

One surprising fact that came out of the survey was that one in six managers will not review their workflow processes until they receive a customer complaint (Intermec 2012).

The main pressures and challenges are as follows:

Pressure to reduce operating costs

Companies are targeting the supply chain as an area where costs can be reduced further and as a result pressure is increasing on transport and warehouse managers to reduce costs whilst also increasing customer service.

This has resulted in companies evaluating outsourcing options as well as reviewing their own logistics operations.

Achieving the perfect order

A recent key performance indicator (KPI) introduced into the supply chain is the perfect order metric. A perfect order is deemed to be one that has been delivered on time, in full, in perfect condition and accompanied with the correct paperwork. This metric includes many of the current supply chain performance measures, and providing everybody uses the same parameters it can be adopted as one of the leading supply chain measures and a differentiator between companies and supply chains. If we ever get to a paperless transaction we may need to replace the fourth metric.

Shorter order lead times and stock availability

Order lead time is the length of time between the placing of an order and the receipt of the item by the customer. Order lead time can be a significant differentiator between competitors. For example, if your favourite cereal is not on the shelf of the supermarket, you are unlikely to wait for the next delivery but will look for it in another store or choose the closest alternative, whether from the same brand or a different brand. Online consumers are likely to choose the quickest delivery method providing the quality and costs are alike.

The quality of products is such that competitive advantage is gained through fast, timely and accurate delivery. With the internet providing price transparency through a proliferation of price comparison websites, competitive advantage is now gained through offering the best service by whatever channel the consumer decides.

The most effective warehouses are those that have reduced lead times whilst maintaining quality at a reduced cost.

Delivery through multiple channels

Companies are increasingly delivering via multiple channels to reach customers more effectively. The pressure on the warehouse is brought about through having to present goods in a variety of different ways.

These include direct delivery of single items to the end user, multiple SKU orders direct to store and bulk orders to retail distribution centres. Each has its own different pick requirement and is likely to rely on different equipment. Order lead times will also vary, as will the method of delivery.

Steve Smith of Manhattan Associates (*Supply Chain Standard*) summed this up when he said: ‘Moving from a comparatively uncomplicated process of supplying and replenishing high street stores – with some added complexity around special promotions – to an online presence with fulfilment from either a store or a warehouse, be that dedicated or part of an existing facility, creates complexities associated with “singles” picking, small order volume, the number of deliveries, time limits, availability issues, and so on.’

Smaller, more frequent orders

Manufacturers and retailers are continually striving to reduce inventory whilst retail stores are looking to increase floor sales space and thus reduce the amount of inventory held in stock rooms. Just-in-time methods, increasing internet sales and initiatives such as efficient consumer response (ECR) and quick response (QR) are resulting in smaller, more frequent orders. This again necessitates changes in warehouse operations, with a move away from full-pallet picking to carton and individual-item picks.

Greater fluctuations in demand

The days of predictable sales are long gone, with consumers rather than manufacturers flexing their muscles in the marketplace. Seasonality remains a factor in terms of market sectors such as fashion, while pre- and post-Christmas sales are now stretching warehouse resources to the limit as the rush to get product to stores intensifies.

Companies have to be able to ramp up resources during the peak periods and have a much leaner operation during slower, quieter periods.

The clothing manufacturer shown in Figure 1.3 on page 15 operates with a core team of seven warehouse staff, which can increase to over 40 during busy periods.

Increases in stock-keeping units

The proliferation of product lines gives the consumer choice; however, it is a major challenge for warehouse managers in terms of having sufficient, cost-effective pick locations. Once operators have to pick items at height, productivity rates reduce significantly.

Retailers continue to seek differentiation and as a result are continually looking to introduce product variants, not only in terms of the product itself but also in pack size, the type of packaging, labelling and product combinations. Retailers are also introducing more of their own-brand labels to provide consumers with even greater choice.

This has led to a number of companies introducing postponement into the warehouse. This entails holding stock of the basic product and only adding the 'extras' once orders have been received. Examples include loading specific software onto personal computers, adding additional memory or including extras such as monitors and keyboards – known as bundling.

Labour cost and availability

During periods of high employment many countries are seeing labour rates steadily increasing and coupled with the fact that a number of countries have an ageing population it is becoming harder to source experienced warehouse operatives. Additionally, working in a warehouse is not seen as being the most glamorous of occupations and this deters a number of young people from entering the industry.

Warehouse managers need to come up with ways to attract new staff.

Many workforces have been supplemented with the introduction of staff from abroad. In these circumstances companies need to look at employing bilingual supervisors and contemplate the use of new technology such as voice-directed processes. There is also the added challenge of health and safety, ensuring that foreign staff are able to read and understand instructions.

Another way to attract staff is to be flexible on working hours. This can include shifts that coincide with school hours or with spouses' work hours, such as twilight shifts. The length of shift can also be varied to coincide with worker preferences. This can also attract student workers. Although potentially difficult to organize, this can prove beneficial in the long run.

Parkinson's Law suggests that work expands to fill the time allowed. This can be a problem in many warehouses when volumes are low. The introduction of annualized hours or even zero hour contracts allow companies to match resource to demand as and when required.

Environmental issues

Warehouse managers are not only tasked with cost savings but also the reduction of the warehouse's impact on the environment.

This includes areas such as energy consumption, affecting areas such as lighting, mechanical handling equipment (MHE), cooling and heating.

Managers need to set examples by switching off lights and heaters when they are not in use and ensuring that MHE is operating optimally.

The issue of waste is also high on the environmental agenda. The warehouse can generate a great deal of waste in its daily operation. This includes stretch-wrap, cardboard, tape, pallets, etc. These need to be closely controlled and, where cost effective, recycled, reused or turned into energy.

Data and information transfer

One of the warehouse manager's greatest challenges is how to manage data. Today's supply chain produces vast amounts of data and it is up to the warehouse manager among others to analyse this data and use it effectively.

A further challenge is ensuring that data is transferred to the correct location. It has been said that supply chains are all about the transfer of information and products are a secondary thought. The ability to track items throughout the supply chain is paramount, especially in the food and pharmaceutical market sectors.

As can be seen from this list and Figure 2.2, the role of warehouse manager has expanded significantly over the years and, as a result, the warehouse manager has become an important link within the supply chain.

Lean warehousing

One way of overcoming some of the above challenges is the introduction of 'lean' concepts into the warehouse operation.

The concept of 'lean' comes from the manufacturing sector, more specifically the automotive industry, and is very much associated with Toyota and the Toyota Way.










'Lean' is now being applied not only in manufacturing but also within the public sector and the supply chain. The idea behind lean is to remove any activity that uses resources but doesn't create any additional value.

In this short section we will look at how lean principles are likely to be applied within a warehouse operation.

According to Wild (2010), warehousing operations by definition are not lean. However, cross-dock centres and fulfilment centres can be, provided stock is moved quickly through the facility.

This is where lean techniques can be used within a warehouse environment. The idea is to identify the activities within the warehouse that absorb resources but don't create additional value.

FIGURE 2.2 Warehouse challenges (adapted from Dematic Corporation 2009)

Challenge	Operational Requirements
Cost reduction 	Increase productivity, improve utilization of space, staff and equipment
Achieve the Perfect Order 	Improve productivity, increase accuracy, improve handling and invest in systems
Shorter order lead times 	Improve processes and increase productivity
Sales via multiple channels and increase in smaller orders 	Improved picking strategies such as bulk picking and greater use of technology
Fluctuations in demand 	Flexible working hours and improved forecasting
Proliferation of SKU 	Improved use of equipment such as carousels, A-frames and flow racks
Labour cost and availability 	Staff retention through excellent working conditions, flexible hours, training and improved productivity
Increasing cost of energy and environmental challenges 	Manage energy more efficiently, better use of waste
Data accuracy and speed of transfer 	Introduce Warehouse management system and real-time data transfer

Waste can be found in many areas of the warehouse, none more so than in the use of space. Many managers will say they are running out of space and require additional storage facilities, yet when you walk around the warehouse you may see obvious signs of waste. During a recent warehouse audit we were told that space was at a premium, yet there were many examples of wasted space. These included:

- half-height and quarter-height pallets taking up space in two-metre-high locations;
- part pallets of the same product spread over a number of different locations;
- over 10 per cent of the stock was obsolete.

In the first case there were opportunities to move the smaller pallets to other locations or alternatively invest in more rack beams to increase the number of available locations.

In the second, providing there weren't issues with FIFO, batch numbers or best before dates, the pallets could have been consolidated. Although there is a labour cost involved it would have been more than compensated by the availability of more empty pallet locations.

In the third case, the warehouse was storing software products that had been superseded by new versions and were very unlikely to be sold. Decisions have to be made in conjunction with the finance department to dispose of obsolete product as soon as it is identified.

Other potential areas of waste in terms of both space and time are at the receiving and despatch bays. If companies are confident about the service received from their suppliers and confident in the picking accuracy of their staff there should not be a requirement for product to be staged and checked before put away or despatch.

Gooley (2013) talks about the seven wastes or muda that lean management seeks to eliminate.

Examples in the warehouse include the following:

- transportation (driving an empty forklift);
- defects (time spent correcting errors such as misspicks);
- inventories (congestion at the inbound and outbound areas);
- motion (interrupting movement such as staging product before put-away);
- waiting time (bottlenecks at pick locations);
- overproduction (holding too much inventory); and
- overprocessing (performing unnecessary steps such as labelling and checking).

Other wastes include ignoring employee creativity and knowledge and over-engineering a process.

Lean thinking revolves around having a clean and streamlined operation and removing non-value-adding processes. Waiting time is one of the biggest and most expensive wastes.

The 5S concept that underpins lean thinking can be easily applied to the warehouse as follows: The first S (Sort or Seiri or Clear out) concentrates on removing any unnecessary items from the work area. This can include obsolete and damaged stock, over stocks, defective equipment, broken pallets, waste packaging, etc. It can also refer to unnecessary movement within the warehouse. For example, the introduction of a cross aisle within the picking area will reduce the amount of travel undertaken by the operators.

You can also look to replace manual paper picking systems with radio frequency technology such as scanning, voice or pick to light.

Items marked for disposal can be put into a holding area until a consensus is reached as to what should be done with them.

The second S (Straighten or Seiton or Configure) focuses on efficient and effective placement of items, eg location labelling and putting frequently used items in easy to access locations. Directional signs in the warehouse are also part of this as it should reduce the amount of time taken to find items.

Items such as empty pallets and packaging should be placed in easily accessible areas close to the point of need.

Finally parking areas for handling equipment need to be set up with reminders to staff to put the equipment on charge if required.

The third S (Shine or Seiso or Clean) comes after you have cleared the area of any unnecessary items. Thoroughly clean the area and produce a timetable for cleaning. This can be done at the end of each shift with defects to equipment reported immediately.

Staff take pride in a clean work area; they work better and from experience clean warehouses tend to be more efficient!

Suggestions include putting bins at the front of each aisle to capture waste paper, packaging and broken pallets and making brooms and dust pans easily accessible.

The fourth S (Standardize or Seiketsu or Conform) is all about creating standards for each work area. Walk through each process with the relevant staff and then produce, document and display best practice procedures within the warehouse.

Make them simple to read and understand. A photograph displaying the process with minimal text works well in this situation.

The fifth S (Sustain or Shitsuke or Custom) ensures continuous improvement. Staff are encouraged not to return to previous work practices but to accept change and take things to a new level.

Regular checks and audits need to be carried out with the potential for bonus payments on achieving high performance scores.

More recently companies have introduced a sixth S which covers safety. It can be argued that safety is at the heart of the operation and therefore is a valuable addition to the 5S mentality.

5S needs to be carried out in the correct order. You need to give individuals responsibility for each task and for their respective work areas within the warehouse.

People management

During the past few years as I've been running warehouse management courses, one of the main topics of discussion has been how to attract, manage and motivate staff.

This section concentrates on what we believe to be the lynchpin of the warehouse operation: the people. Technological advancements have brought increased productivity and higher accuracy into the warehouse operation; however, warehouse managers still rely heavily on their staff to ensure a cost-effective and efficient operation.

In all industries, companies face identical workforce management challenges. These include:

- identifying, attracting and retaining good supervisors, first line managers and team leaders;
- retaining and attracting new employees;
- an ageing and constantly changing workforce, including the introduction of foreign staff;
- identifying training needs;
- the need to provide safe, comfortable working conditions;
- employment contract negotiations;
- compliance with employment and health and safety legislation; and
- staff discipline.

People challenges

Warehouse supervisors are seen as the cornerstone of warehouse operations. They can be in charge of large numbers of staff within a warehouse depending

on the type of work carried out, the size of the warehouse and the capabilities of the supervisors and their staff.

In our experience, a ratio of one supervisor to 12–15 staff members is the optimum. Any higher and supervision becomes less effective, whilst any lower and costs increase and there is more onus on the supervisor to assist in the tasks. This is not always a bad thing as it provides the supervisor with a greater insight into the job at hand and facilitates progression. However, it can reduce overall effectiveness.

A survey carried out by Cranfield University (Baker and Perotti 2008) showed the average number of operators per supervisor were as follows:

- small warehouse (< 10,000 square metres): 1 supervisor per 8 operators; and
- large warehouse (> 10,000 square metres): 1 supervisor per 15 operators.

As discussed previously, the role of the warehouse and that of its staff has changed appreciably over the last 10 years. Warehouse staff roles are changing to include more tasks that were once undertaken by staff in administration, inventory control and customer service.

McMahon *et al* (2007) undertook research into the various logistics functions and found that warehouse supervisors work in the difficult middle. They must understand and often do the work of operators and clerical staff but also perform management tasks. These jobs are complex, calling for frequent decisions and almost constant activity.

In today's warehouse, supervisors need a comprehensive knowledge of the operation along with significant management skills.

These changes have altered the way companies hire, train and develop warehouse supervisors. They require higher education standards, better training and ongoing personal development.

Supervisors are the people at the sharp end as the warehouse managers are usually found at their desks in front of computer screens evaluating reports and planning future activity.

Warehouse supervisors therefore need high-level supervisory, training and interpersonal skills. They also need to know about supplier and customer procedures that affect warehouse operations.

Supervisors also need to manage by example. A previous director of mine was often seen picking up litter within the warehouse, setting an example to the rest of the staff. This simple task shows how important housekeeping is within a modern warehouse. Having been around warehouses all my working life, I have yet to find an untidy warehouse that is likely to figure within the top 10 best-performing warehouses in the country.

Taking pride in the way the warehouse looks tends to mean that staff take a pride in their work, leading to an efficient warehouse.

According to Ackerman (2000), effective supervisors and managers encourage an open exchange of ideas and have frequent discussions with their staff and peers. They should have nine critical attributes:

1 *Excellent communication skills*

The ability to receive and convey messages clearly and explicitly. Miscommunication leads to confusion, wasted effort and a missed opportunity.

2 *An ability to delegate effectively*

This is a hard skill to master but very effective when achieved. Once a task is delegated, managers and supervisors must not oversee the task too closely but neither should they abrogate responsibility. They need to monitor how the task is progressing and give feedback on performance.

3 *Motivational skills*

Supervisors and managers need to understand their staff and adapt their approach to motivation and feedback according to each person's needs. Providing staff with consistent feedback, even when they are performing well, is as important as the feedback to less well-performing staff.

According to Gavin Chappell, supply chain director at Asda Walmart in the United Kingdom, 'if you get the culture right and the atmosphere, structure and progression right it's not that difficult to get a motivated team' (*Retail Week* 2009).

4 *Problem-solving skills*

Problem-solving and decision-making skills are closely aligned and each requires a person to identify and develop options, and having done so, act decisively.

One example provided by Gagnon (1988) is that 'hidden lost time accounts for about 80 per cent of lost time, yet attracts only about 20 per cent of management's problem-solving attention'.

He said that 'it's easy to see operators standing around because they have no work to do; much harder is to see delays in operations that are the result of system issues, poor data, bad processes, etc – but that time can really add up'. Supervisors should be alert to these situations.

When walking around your warehouse, look for staff who are waiting for something to happen before they can do their own job – find out what's causing the bottleneck and change the process.

According to Goldratt (1984) every operation has some kind of constraint that stops it from operating optimally – the weakest link in the chain. You need to identify the constraint and change the way you work to overcome it.

The five steps in the process are as follows:

- identify the constraint;
- exploit the constraint (get the most that you can out of the current situation);
- subordinate everything to the constraint (avoid producing more than the constraint can handle);
- elevate the constraint (focus on eliminating it); and
- identify the next constraint.

Congestion at a pick face can be an example of a bottleneck:

- identified by people waiting in turn to pick items;
- try to maximize productivity under the current situation;
- don't overload the system by sending too many pickers to the same location;
- increase the number of pick locations for that product.

If cured, return to step 1.

5 *Flexibility*

Supervisors in today's fast-moving warehouse environment need to be flexible, react quickly to urgent requests and shift priorities easily. They are asked to oversee and undertake many different tasks and they need to be able to handle stress caused by the pressure to meet deadlines.

6 *A comprehensive knowledge of company processes and procedures*

Warehouse supervisors need to have a comprehensive understanding of the company's policies and procedures in order that they can effectively train warehouse operatives and coordinate their work. Supervisors are likely to be called upon to oversee and undertake many different tasks within the warehouse. As such, they need to spend time in all sections to get a working knowledge of all operations within the warehouse.

Supervisors need to be involved in and be party to the compilation of warehouse procedures and processes. They need to know both the administrative and operating procedures.

7 *Ability to train others*

Supervisors need to be able to pass on their knowledge effectively to their staff to ensure consistency and continuity. Well-trained staff are more likely to stay and provide the supervisors of the future.

8 *Be customer oriented*

Today supervisors need to be fully aware of customer requirements and manage the operation in such a way that customer satisfaction is

achieved within the parameters set. However, they also need to be mindful of costs and the potential trade-offs involved.

9 *Teamwork skills*

Supervisors need to be able to set out the goals of the company to their team and outline how the team is going to contribute to these goals.

Team-working skills and capabilities include:

- ability to work in a group;
- ability to build relationships;
- ability to cope under pressure;
- negotiating skills;
- ability to cooperate;
- coordination and allocation of tasks;
- influencing skills;
- ability to compromise where necessary;
- ability to make decisions.

Supervisors are paramount to the success of any warehouse operation. They are the liaison between employees and management. Needless to say, they also need to receive suitable, ongoing training.

One pitfall to avoid is not to promote your best operative without assessing their supervisory abilities. Many companies use promotion to award ability; however, the best person in a particular job is not always management material. This is sometimes called the Peter Principle, where staff are promoted as a result of their capability in particular job aspects. This can have a number of consequences. For example, by promoting your best picker not only are you taking them away from the shop floor but you may also be promoting them to a position at which they are no longer competent (they have reached their 'level of incompetence'). Here they stay – or may leave, being unable to earn further promotions and potentially harming the company's operations.

Attracting and retaining warehouse employees

Competition between companies in high-density warehouse areas can be fierce with staff moving between companies for very little increase in hourly rates. This puts a great deal of pressure on management.

Although many firms see monetary incentives as being key to staff recruitment and retention, a number of surveys – including one by Min (2004) in the United States – suggests otherwise with active employee involvement in productivity improvement, management commitment to staff, job security and a sense of community being seen as high on the list.

Flexible hours, recognition of a job well done, clean and safe working conditions, access to training and open communication are all seen as crucial to attracting and retaining staff. Other areas include staff benefits and bonus payments. The opportunity to follow jobs through to their conclusion can also give staff a sense of ownership and a greater understanding of the business.

Surveys (eg Gooley 2001) have shown that the primary reasons for staff leaving their employment isn't pay but employee discomfort with, or misunderstanding of, the corporate culture and the general lack of a sense of belonging.

As Chappell (*Retail Week* 2009) puts it:

Having motivated, engaged individuals working in warehouses is a must if you want to be cost effective. However, it's also about service. If you need the warehouse to work above and beyond in times of peak or change, would you want a team who is just doing it for the extra overtime or one who is doing it because they want the business to succeed?

An ageing and constantly changing workforce

This is a challenge faced by many warehouses throughout Western Europe and the United States and is beginning to emerge in China also. Experienced staff are nearing retirement age with fewer trained staff to replace them as the position of warehouse operative is not seen as attractive for today's youth.

In order to overcome the challenge of staff shortages, organizations are visiting schools to teach pupils about the role of logistics in today's society and trying to burst the myth that warehouses are cold, dirty, noisy places in which to work. As warehouses become more technically advanced this will also attract a new breed of warehouse employee – those with an interest in technology and automation.

Attracting younger workers and increasing their job satisfaction early on can be key to early integration into the organization, which in turn can lead to improved attitude and job performance. Apprentice schemes are ideal in this situation.

Companies are also utilizing agency workers in greater numbers; this provides cover not only during seasonal peaks but also during periods of absence

and holiday cover. The use of agency staff can also provide flexibility during new contract start-up.

As discussed previously, the use of flexible working hours and annualized hours will attract staff who would not normally consider working in this environment.

Operating hours

The legislation that surrounds working hours within the warehouse will vary country by country. This section outlines some of the options available to the warehouse manager in terms of working hours. However, these need to be checked against local legislation.

The operating hours of the warehouse will very much depend on the throughput and customer requirements.

The classic three-shift system is still used widely; however, with the increasing requirement for 24/7 working, many warehouses have adopted different shift patterns.

The classic shift pattern is as follows:

Shift 1: 0600–1400 hours;

Shift 2: 1400–2200 hours;

Shift 3: 2200–0600 hours; and

Shift 4: 0900– 1700 hours.

This shift pattern works on an eight-hour day with 24-hour coverage. However, one of the drawbacks is that there is no overlapping shift for the handover of information.

Within these shift patterns we also see staff taking breaks at the same time. Studies differ on the effect of group breaks on productivity. Some suggest that staff interaction at break times is positive and leads to increased productivity whereas others will argue that having equipment inactive and orders stacking up can be detrimental to overall performance and adds increased pressure on the staff. I tend to lean towards the latter.

With the introduction of 24/7 working, a number of companies have adopted a four-day working week for staff based on a 12-hour day on a rotating basis. See Table 2.1.

Other companies have utilized part-time workers with flexible shifts, working around school hours with staff working between 0930 and 1430 hours, for example, in order to supplement full-time staff.

TABLE 2.1 Warehouse shift patterns (adapted from Ackerman 2000)

	Team 1	Team 2	Team 3	Team 4
Monday week 1	0600–1800	1800–0600		
Tuesday	0600–1800	1800–0600		
Wednesday	0600–1800	1800–0600		
Thursday	0600–1800	1800–0600		
Friday			0600–1800	1800–0600
Saturday			0600–1800	1800–0600
Sunday			0600–1800	1800–0600
Monday week 2			0600–1800	1800–0600
Tuesday week 2	0600–1800	1800–0600		

Where 24/7 coverage is not required, typical shift patterns are as follows:

Shift 1: 0600–1400 hours;

Shift 2: 0900– 1700 hours;

Shift 3: 1400–2200 hours.

There can be variations on the above theme. The ideal situation is to ensure that peaks in activity are covered as much as possible. This can include the arrival of inbound trucks in the morning and the normally busy period of picking and despatch during late afternoon and early evening.

When shift working is adopted, public transport and catering facilities need to be available for the staff.

Other considerations include potential congestion during shift changeovers and the effect on nearby residential housing of vehicle movements, noise and light pollution. In a seasonal business the system of annualized hours can be used to cover periods of unpredictable demand. Staff are paid the same amount each month but their hours will vary depending on the work content within the warehouse operation. This can include working longer shifts during periods of increased activity and being sent home when things become quieter.

The adoption of this system provides increased flexibility, reduces the need for agency staff and temporary labour and ensures sufficient labour cover when demand is high, as a result providing better customer service. Through its flexibility and by working with staff it can also contribute to higher levels of employee retention.

Rather than pay overtime during periods of high activity, the company can 'call in' these hours without making additional payments.

This system can work efficiently with the cooperation of staff. Whereas overtime relies on the goodwill of the employee and their commitments at the time, a system of annualized hours should benefit both parties equally. Costs are also reduced as there is no additional cost for each hour.

Temporary labour is expensive, not only in terms of the hourly rate but also in terms of training, supervision and the likelihood of lower productivity. Where temporary workers are utilized it is always a good idea to strike up a relationship with a local agency that can provide staff who have received training specific to your company's requirements and have also received some form of induction.

Training

A whole book can be written on this topic. However, in this section we will cover the basics of warehouse staff training.

First, managers need to ensure that all staff receive an induction. For example: 'At Boots we set up a three-day induction programme for colleagues joining the warehouse, the highlight of which was a day's stint working in store, seeing a delivery being made and working the stock to shelf. It really helped colleagues connect what they do with the store operation' (Chappell 2009). A simple process flow map showing the end-to-end supply chain and how each step impacts the final customer will engage warehouse staff and make them feel part of the bigger process.

Second, the manager needs to undertake a training needs analysis to identify which staff require specific types of training. There are always areas in which staff need to be trained – the trick is in identifying them.

Effective training helps to engage staff and should be an ongoing process. Training across disciplines not only provides the operator with a sense of progression but builds flexibility into the operation.

From a productivity, but more importantly a safety, point of view, all staff operating mechanical handling equipment must be trained on each individual piece of equipment and obtain a licence from the authorities.

Staff must also be shown how to lift heavy items without causing injury as back injuries tend to be one of the most common reasons for absence from work.

Warehouse audit

In order to assist the warehouse manager to improve processes we have produced a warehouse audit which can be found in Appendix I.

These lists of questions are not exhaustive and can be added to by the user to mirror their own operations. Audits should be undertaken by an independent person either from within the company or an outside consultant.

The purpose of the audit should be explained to staff and a timescale agreed to introduce the improvements. Results need to be shared with all the staff and staff need to take ownership of the results and the improvements necessary.

The audits which are concerned with the internal processes are based on what the authors see as best practice in a warehouse.

These audit forms can also be downloaded from www.appriseconsulting.co.uk/warehousetools (password – apprise1234).

Quality systems

Finally, in this section we have provided a list of quality standards that warehouse managers may deem necessary or advantageous for their operations.

These are as follows:

- ISO 9001 – a standard of requirements against which your Quality Management System can be evaluated;
- ISO 14001 – a standard of requirements that defines and establishes controls to reduce your company's impact on the environment;
- ISO 50001 – a standard of requirements that deals with the energy impact of your warehouse operation;
- OHSAS – a standard of requirements against which your Health and Safety Management System can be evaluated; and
- ISO 27001 – a standard of requirements which deals with all aspects of information security (this is particularly useful in the case of outsourced warehousing).

Summary and conclusion

If a warehouse is going to operate effectively and efficiently it needs an experienced, knowledgeable, well-trained manager and a motivated team of supervisors and operators.

An ageing population and difficulty in attracting new staff pose more challenges for today's manager, together with increased environmental pressures.

The warehouse manager's challenges are therefore many and varied, not least the requirement to reduce costs and inventory levels whilst increasing customer service.

A comprehensive and ongoing training programme is essential for both managers and supervisors. The warehouse should not be seen as a black hole but as an essential part of the supply chain, and the role of its staff in this chain needs to be recognized and understood.

Quality of service is what sets companies apart these days and the introduction of audits and quality systems into the operation will enable managers to continually assess, evaluate and improve their service both internally and externally.

The next section of the book examines in detail the processes within the warehouse and suggests where the manager can increase productivity and look to reduce costs.