Warehouse performance management

Introduction

Most operations managers find themselves at some time or another, under pressure to reduce costs or absorb more work with no increase in budget.

In difficult times, demands for improved productivity become the norm and this is when performance management comes into its own.

Where do you start?

If you want to make an immediate impression on costs then you must target variable costs. Variable costs are predominantly energy costs, fuel costs and labour. In a warehouse the first two will be unlikely to offer much more than marginal savings, however even a cursory glance at the division of warehouse operating costs will show that 50% to 75% of **all** cost is labour.

Defining performance management

Performance management (PM) concentrates on labour cost as the principal variable cost and therefore the greatest opportunity for cost saving. PM is a collection of techniques for improving warehouse performance which all have one thing in common:-

Work measurement

Knowing how long it should take to do a job enables you to calculate in advance how much labour you need, to set accurate performance targets and in retrospect to measure how well your workforce performed. And because time is money, it is a simple step to convert performance into cost.

The components of performance management

Standard data

This is the database of standard job times all set at a predefined performance level. It is the foundation of all the components of performance management that follow.

Time and Attendance System (T&A)

This is a system to record start and finish times of employees and their movements between jobs while they are at work.

Along with standard data, an accurate record of attendance time is at the foundation of performance reporting.

Workload planning system

A workload planning system takes known or estimated future volumes of work and uses standard data to convert them into time. With reference to past performance, work content can then be converted into labour requirement to ensure accurate matching of labour resource to workload.

Performance reporting system

This is a suite of reports for individuals and teams where past performance is calculated and reported. Throughput information by individual and team is gathered principally from the warehouse management system but might include other inputs. The system will also gather data from the time and attendance system and the standard data base.

Proprietary labour management systems are fundamentally performance reporting systems with automated links to the warehouse management system (WMS) and an interface to time and attendance. They carry the standard data at a sub elemental level and apply it to a very detailed breakdown of individual WMS work assignments. In this way they can compute very accurate standard times for pick and truck assignments which will be calculated from precise travel distances and pick handling times by product characteristics, e.g. product weight. Some WMS come with their own T&A system included.

Cost to serve system

Cost to serve is based on the principles of activity based costing and as such accounts for the cost of individual products based on handling times and space costs, among other factors. In this way the standard cost can be derived for processing a product or a group of products. The principal can be confined to warehouse costs alone but is often extended to include all supply chain costs. It can be used to evaluate individual product profitability or client profitability in a multi user warehouse.

Process improvement

Although not strictly speaking ‘a system’, process improvement is much more effectively carried out if it is based on the objectivity of standard data and performance reporting. PM’s most valuable contribution is the ability it brings to compare alternative processes or equipment options and to then ensure that benefits are delivered in full.

What to look out for in performance management

Before installing PM, always start with a high level evaluation of the potential for improvement in the warehouse. This should incorporate a high level measure of present performance and a model for projecting improvement potential which includes growth and other planned changes. In this way you will know the savings potential, which can be considerable and you can go on to calculate implementation costs and develop a project plan with timetable.

Decide early on if you need a proprietary labour management system as part of your PM system. This decision will hinge on cost and the undoubted additional benefit that a good LMS can deliver.

Plan at the outset to automate as much as possible of the routine data gathering and reporting so that running costs are minimised.

If you have a T&M system then check that it is compatible with your chosen LMS, if you don’t have one yet, now is the time to put that right.

Be prepared to find weaknesses and black holes in your present data on attendance and throughput. Treat this as positive because putting it right will deliver some quick wins.

Invest time in selling in the principles of PM to your management team and in training them to use it; your savings depend on it.

Be clear in your objectives for PM and build them into your plans and budgets.