

Successful warehouse automation depends on more than technology



There is a view in some quarters that warehouse automation doesn't work and does not pay for itself. For some, automation means lack of flexibility and constant breakdown. This view has been fuelled by some high publicity failures over the years where multi-million pound investments have been abandoned as automation is removed to be replaced by manual, labour intensive systems. The fact is that there are many successful automated warehouses and there are very few genuine failures; and by successful we mean that they are reliable and are meeting the investment criteria of the business case.

We are sure that automation does work for warehouses and distribution centres – it works very well – but it depends on more than good engineering design and application. A successful automated system needs a change of culture and top notch management.

Take the example of one of our clients – a major high street retailer. Work on the specification of a new automated distribution centre started in early 2003 and the facility went live in May 2005. Initial results were poor with throughput well below design levels and operating costs well over budget. In 2006 operating costs were still higher than those forecast in the business case.

There were certainly some technical problems in the first year but all of these were overcome. It was only then that it became clear that most of the problems were not caused by failures in equipment or computer software but in failures to come to terms with the change of culture and management style that was needed for successful operation. We worked with the client during 2006 and 2007 to address these change management issues and undertook a programme of continuous improvement. The issues addressed were almost entirely operational and very few were related to the automation technology.

By 2008 operating costs had fallen dramatically and are now some 25% below the business case figure for the design throughput.



Our client could easily have pulled the plug on automation in 2006 but with our help they identified the cultural and management issues and they put a programme in place to make the changes. They persevered and now they are reaping the benefits with a system that has more than justified itself financially.

There were a number of lessons to be learned from this project. Some of the more significant are:-

- There is a temptation when preparing the business case to overstate the benefits available in the early years whilst understating the benefits that come later.
- Technical problems are not usually the main issue. The system design team and maintenance staff knew what they were doing and could quickly put right any problems. The real issue was that operations management and supervisors were used to operating a manual warehouse whereas an automated warehouse is much more akin to a manufacturing process – a quite different culture is needed.
- The system integrators who supply automated warehouse systems are not operators and indeed they have quite limited experience of operating the facilities they design. Operations staff need to be involved in the specification and design process and need to take early ownership of the processes which will be built into the system.
- It's no good simply duplicating manual processes. The operations team need to understand that the processes used in an automated warehouse must be adhered to and the facility must be run like a manufacturing process. Processes can be changed as improvements are identified but they have to be introduced in relation to the whole system.

The experience and knowledge of the team of consultants and technical staff from The Logistics Business was valuable through every stage of this project, over a period of five years. We helped ensure a good specification of requirements and selection of quality suppliers. Most importantly we were able to understand the operational issues and help guide the client along a road to success. Perseverance brought rewards and significant long term financial benefits.