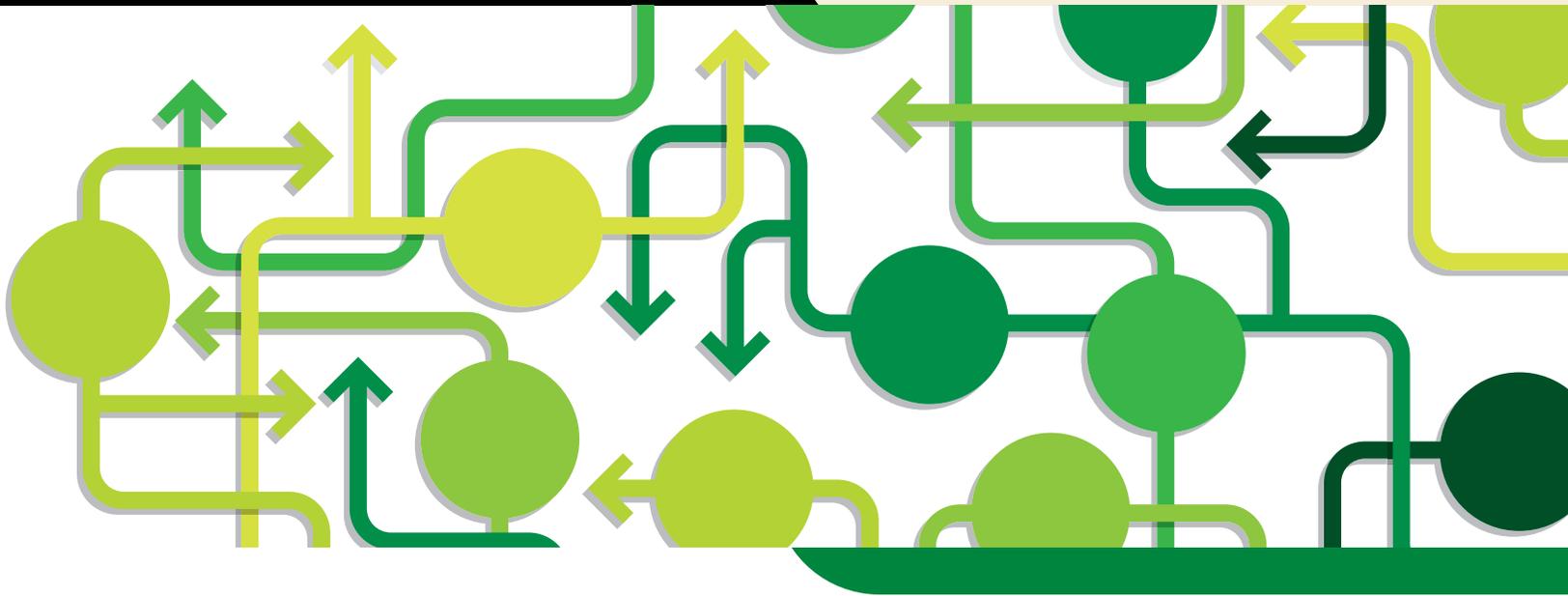


Incorporating Quality Management in a Logistics Environment



This report shows how a commitment to continuous improvement in logistics operations can provide value for companies and their customers.



The concepts of total quality management and continuous improvement have been around for decades. However, the concepts have only recently been applied successfully in logistics environments. Today, more and more companies are finding that they can control costs, improve visibility, increase speed to market and strengthen their businesses by making total quality management (TQM) part of their logistics operations.

A Closer Look at TQM

A TQM program is designed to help companies minimize waste and reduce the chance of errors in order to do things better, faster, and be more responsive to customers' changing needs. Strategy, data, and effective communications help to integrate quality throughout the organization. Emphasis is on continuous improvement.

Quality management often is associated with the Japanese concept of poka-yoke (pronounced PO-ka yo-KAY) or "mistake proofing." Simply put, companies must build in safeguards to prevent problems or catch them early on, so they can be addressed before they escalate. In the logistics arena, examples can include dock locks to prevent trucks from driving away while loading, shadow boards to visually identify which tools are in use or missing, or technology to prevent an RF hand-held from advancing a transaction unless each step is performed properly.

To achieve maximum impact, TQM requires support company wide. "It is important that a quality management program begin with the company's mission and values," says Bob Deckon, manager of operational excellence at Saddle Creek. "The corporate culture must be driven by excellence in service and really become a living, breathing learning environment."

When TQM is an integral part of operations, it can deliver a significant value proposition for logistics operations, enabling companies to:

- Increase speed to market
- Enhance visibility
- Control costs
- Strengthen overall business/service to customers

Increasing the efficiency of processes, optimizing product flow, improving inventory management, eliminating waste, and leveraging technology are just a few ways in which these benefits can be achieved.



Implementation in a Logistics Environment

As in a manufacturing environment, a strong quality system is based on a foundation of ISO 9001:2008 and may incorporate a variety of management tools such as LEAN concepts, Six Sigma and the DMAIC Cycle. "Many companies may implement ISO or Lean or Six Sigma, but we've found that the greatest impact is to be found when these strategies are used collectively as part of an on-going continuous improvement effort," says Deckon.

Careful analysis of operations typically reveals a myriad of opportunities for improvement. In a logistics operation, this may involve analyzing how a box moves through the warehouse or

monitoring the movements of a forklift operator during an eight-hour shift. Gemba Walks, Kaizen events and Pareto analysis, as well as traditional engineering support, can help to analyze processes and identify trouble areas.

Findings may help to improve the picking process or identify a more convenient warehouse layout. As issues are identified, the quality team develops appropriate solutions as well as the tools and training necessary for implementation.



The results of such an intensive process can be impressive. For one CPG company, a series of LEAN initiatives across multiple facilities helped to address returns and damage product flow, reduce detention cost, minimize shipping errors and improve the efficiency of the warehouse layout.

Investments in quality can have a considerable return on investment. “It is truly a situation where the ‘little’ things add up—getting more cube efficiency, increasing footprint density, reducing warehouse damage, improving cycle time, etc.,” says Deckon. “The CPG customer was able to save nearly \$5 million dollars over five years by implementing LEAN initiatives in two of their facilities.”

Common Challenges

One of the challenges in implementing quality programs in a logistics environment is to document and standardize processes. Unlike manufacturing processes, which tend to be fairly standard and linear, logistics processes can be more fluid and need to flex to accommodate changing needs.

Data collection can also be difficult. A service industry offers less opportunity for collecting quantifiable data than a manufacturing environment. In logistics, data is typically related to duration of processes and timeliness of delivery. For example, once an order is dropped, how long does it take to pick, stage and load it on a trailer?

Fortunately, says Saddle Creek’s Deckon, that challenge is now diminishing for those in logistics. “We’re seeing more sophisticated, statistical software that helps us understand processes better—quantifying and giving us a greater ability to predict.”

Seeking Support

Implementing and sustaining a quality management program can be a complex process. A third-party provider with experience in making strategic quality improvements can be a valuable ally.

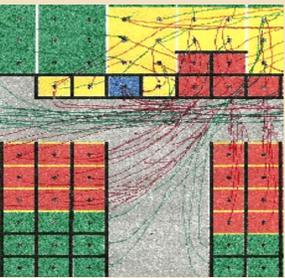
Look for a partner with the flexibility to adapt to changing needs and work with them to identify major priorities or areas of concentration on an annual basis. Confirm their commitment to continuous improvement.



Cultural compatibility will be critical as it will be important to work closely together. Quality management programs are most effective when there is a collective desire for improvement and a willingness to invest in the process. Ask about training programs—for your staff and theirs. Do they have the resources necessary to support needed changes (technology, equipment, staffing, etc.)? If not, are they willing to invest in them?

A successful TQM program requires a significant commitment, in terms of both management attention and resources, but the return on investment can be well worth the effort for logistics operations. In fact, it can even be a competitive advantage.

TQM In Action



When a food company faced high levels of warehouse damage which prevented it from meeting its KPIs, it partnered with Saddle Creek to identify the source of the problem and established a plan for solving it.

The quality team began by defining terms and categorizing types of damage. The existing system did not capture all types of damage (inbound, warehouse, packaging lines, etc.) which prevented proper recoupage.

To benchmark current processes, damage handling in all areas of the warehouse was studied and quantified. Observing, counting, and calculating percentages helped to provide valuable data which was entered in bar charts and pareto charts.

The team analyzed the current situation by looking at spaghetti diagrams of product flow, talking with employees, viewing photos of damage and processes and more. This allowed them to compile a list of lessons learned and determine where to focus improvement efforts.

Based on its research, the team was able to envision the “future state,” identifying the desired flow and goals for damage reduction and defining a solution to achieve this state. The team identified the necessary resources (i.e. equipment, technology, labor) and investment to significantly reduce damages. Revising the layout of the recoup area proved to be an important step for the food customer’s operations.

Training was critical—for the entire operation, from managers to forklift drivers, to seasonal workers. And, to ensure that the quality improvements would be sustainable, the team scheduled periodic internal audits by the facility manager.

By effectively implementing suggested improvements, the customer anticipates a savings of \$20,000 annually and expects to meet its KPIs.

About Saddle Creek Logistics Services

This research was sponsored by Saddle Creek Logistics Services. As a third-party logistics company, Saddle Creek leverages its broad array of capabilities — including warehousing, transportation, packaging and fulfillment — to provide integrated solutions in support of our customers’ business objectives.

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