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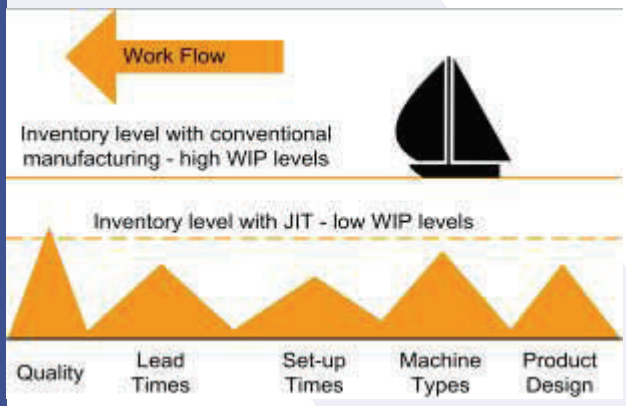

Above: A "Just in Time" approach will expose hidden "rocks" such as quality issues, long setups or poor product design. *(image courtesy Tangram Technology www.tangram.co.uk)*

Slashing Inventory can Cost You Cash

Based on an article by Tim McLean in Australian Manufacturing Technology April 09

Reducing working capital, especially inventory, is a great strategy to free up cash. However the wrong approach to inventory reduction often ends up costing the business cash rather than freeing up cash.

Slashing finished goods stock the wrong way can mean that customers don't get their product. This leads to lost sales and a lot of redundant stock for the customers that you don't have any more.

Slashing raw material inventory may not immediately impact customers. However, even if you don't stop the production line, you very quickly create a large amount of incomplete work in progress waiting around for parts. You will also affect customer deliveries and fitting the parts on the incomplete products is an inefficient use of labour.

So Should we Give Up on Trying to Reduce Inventory?

No!! , inventory is waste. Change your underlying business factors and you can permanently change your inventory without affecting service or productivity. Steps we use include:

- Try to completely eliminate wasteful processes.
- Combine processes and create "one piece flow".
- Reduce batch sizes.
- Move away from "push" MRP based planning to a "pull"
- Order and deliver more frequently.

The lean approach can readily reduce inventory by over 50%. Not only does that free up lots of cash and acres of space, it also makes your business more flexible and responsive and will improve your productivity and service to customers. So put the inventory axe back on the shelf and try lean approach for next your inventory reduction initiative.

Link to the full Australian Manufacturing Technology Article

Why Problems are Good

We are taught to avoid problems in our life and work. However problems are essential for learning about your business. Not having problems means that you are tolerating fat and are not testing the boundaries of your business. In fact at Toyota they have lots of problems. According to Lean expert, John Shook, the Andon cord, signaling a problem on the line at Toyota Kentucky gets pulled around 15000 times per day!!

Develop the Skills to Solve Problems

If you are going to go out of your way to create problems you need to start with good processes to solve them. This involves using structured techniques to follow a "plan do check act" approach to finding the root cause, planning a solution, implementing the solution, checking the problem has gone away and acting to lock in the solution in your procedures.

Create a Crisis

Implementing "just in time" by reducing lead time, cutting batch sizes or moving to "one piece flow" will very quickly unearth hidden problems in your business. These can be internal quality issues, skills issues, assembly problems or machine reliability problems. They may have been there for years but hidden through expediting, extended lead times and excess inventory. "Lowering the waterline" by reducing lead time will expose these "rocks" and give you a chance to permanently fix them, reducing cost and improving quality.

Quality Systems and Lean- Complementary or in Conflict?

Quality management systems based on ISO9001:2000 have long been treated completely separately in organizations to lean initiatives. To many lean "purists" the apparent bureaucracy of ISO9001 systems and the perception that such systems rely on inspection make them antithetical to the principles of lean and the Toyota production system. However the evolution of the ISO9001 standard over the past 20 years has been towards simplification and an increased emphasis on continuous improvement and customer focus. Given that most manufacturers who implement lean will already have a Quality System, how can these two major business systems be brought together? I recently compared notes with TXM Quality Assurance Consultant, Ruth Oakley and we found a lot of potential synergy between lean and ISO9001.

Lean Method	*Description*	*ISO 9001 Section*
Strategy Deployment	The Toyota "Hoshin Kanri" system ensures that every level of the business is aligned with the business strategy and have their goals and objectives aligned with that strategy. This is communicated up and down the organization through simple A3 "one page plans".	5.1 Management Commitment. 5.2 Customer Focus 5.4.1 Quality Objectives 5.5.3 Internal Communication
Standard Work	Standard work is a standard way of doing every job that ensures that work load is completed safety at a consistent rate and in a consistent manner leading to a consistent quality output.	6.2.2 Training and Competency 7.5.2 Process validation
Structured Problem Solving	As is described in "Why Problems are Good" above, the transition to lean manufacturing will unearth hidden problems in your operation. Therefore an effective method of finding and fixing these problems at the source on the shop floor is essential for successful lean implementation.	8.5.1 Continuous Improvement 8.4 Data Analysis 8.5.2 Corrective Action 8.5.3 Preventative Action.
5S and Visual Workplace Management	5S is a well known system for controlling the organization of a workplace while visual management ensures that the performance of the workplace is constantly updated and visible to everyone in the workplace.	5.3 Quality Policy 5.5 Internal Communications 6.4 Work Environment
Error Proofing and Right First Time	The first principle of the Toyota Production System was "Jidoka" or machines and processes that do not pass defects. Poke-Yoke are processes that are designed to prevent operator errors.	8.3 Non Conforming product control. 8.5.3 Preventative Action

Above: The table shows how lean foundation tools can be mapped to the requirements of ISO9001. Effective maintenance of your quality management system can be the "ACT" in your PLAN-DO-CHECK-ACT continuous improvement cycle.

A Final Thought…..

At the recent Lean Summit, John Riley, the Toyota Supplier Development Manager told us about a component manufacturer in Thailand that completed a lean transformation in 4 weeks. We have had similar experiences working in Asia. So if you think that companies in Asia just compete on cost, think again! This "Can Do" attitude and openness to change exists in many Asian businesses. Too often in developed countries we find excuses to delay or water down our plans for change until the market forces us to change or we go out of business. We are in a competitive battle with Asia and as in any battle our competitors are constantly changing and we need to change rapidly and proactively to keep ahead.

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