CGMA® TOOLS

Lean Management Techniques

10 Best Practice Checklists







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INTRODUCTION

In today's competitive environment, we are challenged to do more with fewer resources. One of the best ways to increase effectiveness and efficiency is to adopt Lean Management techniques. All types of business — manufacturing, service, for-profit, not-for-profit, education and health — can benefit from the Lean approach. The manufacturing industry has been implementing the Lean approach for many years. However there are still organisations that have a long way to go to become leaner. This tool provides ways to help organisations identify and reduce waste in their processes and procedures and ultimately enhance the value of the organisation.

WHAT IS THE LEAN CONCEPT?

One of the more interesting trends to affect profitability as well as the way in which companies address overall efficiency is the concept of "Lean."

Lean is based on two main philosophies:

- 1. Only do what the customer values, and
- 2. Relentless identification and elimination of waste.

BENEFITS OF THE LEAN PHILOSOPHY

When Lean is successfully implemented through effective planning and implementation the following will occur:

- Reduce lead time
- Reduce work in process
- Improve quality
- Improve flexibility
- Reduce transactions
- Simplify scheduling

- Enhance communications
- · Reduce costs
- Improve on-time deliveries
- · Increase sales
- Improve space utilisation

LEAN MANUFACTURING OVERVIEW

What is Lean Manufacturing? Lean manufacturing is a team-based systematic approach to identifying and eliminating wasteful or non-value-adding activities within the manufacturing environment. It is a whole way of thinking, and should be considered much more than a series of programs or techniques. It must become a whole system approach in order to create a new operating philosophy, which focuses on eliminating all non-value-adding activities from order entry to receipt of payment.

Within Lean there are major areas of emphasis which need to be understood:

The 5S system has been labeled as a common sense approach to improvement within a facility or manufacturing plant that focuses on organisation, cleanliness and standardisation to improve profitability, efficiency, service, and safety. The basis of a 5 System is not very complicated. What do the 5Ss stand for?

- *Sort:* Clearing the work area Any work area should only have the items needed to perform the work in the area. All other items should be cleared (sorted out) from the work area.
- *Set in Order:* Designating locations Everything in the work area should have a place and everything should be in its place.
- Shine: Cleanliness and workplace appearance Not only should the work area be clear, it should also be clean. Cleanliness involves housekeeping efforts, improving the appearance of the work area, and even more importantly, preventive housekeeping keeping the work area from getting dirty, rather than just cleaning it up after it becomes dirty.
- Standardise: Everyone doing things the same way Everyone in the work area and in the organisation must be involved in the 5S effort, creating best practices and getting everyone to "copy" those best practices the same way, everywhere, and every time. Work area layouts and storage techniques should be standardised wherever possible.

• Sustain: Ingraining the 5Ss into the culture — It is tough to keep a 5S effort, or any improvement effort for that matter, going. The 5Ss involve a culture change. And to achieve a culture change, it has to be ingrained into the organisation — by everyone at all levels.

Visual Controls are documented methods and procedures. Typically, they include easy-to-follow visual cues for actions to be taken. A common example is the standardised work chart. By using visual controls, staff and managers are more able to see the current status of the job site and determine if any abnormalities exist. This also allows for all workers to see if items are not in the correct place and correct the situation through inspection by visual control. Standardised work charts typically are an extremely effective visual management tool that results in improvements in safety, quality and efficiency while improving cost effectiveness.

Value Stream provides an integrated description of how a product passes through all stages of production. This process establishes the value of each section of the value stream. Typically, the value stream will look like a flowchart that outlines all steps in the process or product's life. This is equally applied to service processes (even back office) as well as manufacturing.

Pull is a method for moving inventory through a production process. Traditional manufacturing incorporated batch processing. These batches were planned based on a specific lot sizes. In the pull process, nothing moves forward until it is "called" for by the customer or the next processing step. In a pull system, an item that is sold immediately generates an order to produce another. This is often compared to a grocery store where items are replaced on the shelves as they are used. In this fashion only the most current material is being processed. Pull production results in eliminating wasteful inventory buildups and employs elements of just-in-time delivery, one-piece flow, etc.

Mistake Proofing uses devices to prevent defects from passing on to the next process. This approach is an

improvement over traditional quality approaches, which evaluate for defects at the end of the assembly line. Mistake proofing requires that process quality checks are built into the operations and the equipment has the appropriate sensors to detect errors and stop the process.

Quick Changeover is a concept used to eliminate the need for any adjustment by inventing ways of doing it once and forever with a permanent solution. One of the biggest wastes of resources is the time when a machine is not in production. This time is created when production lines need to be adapted and adjusted to run a different type of product. The ability to rapidly change from one product to another is often a key success for many companies. As customer lead times are continually being shortened and product mixes become more complex, the ability to rapidly change from one product to another is a competitive advantage. Fortunately there are powerful, quick-change techniques that can be applied to any type of operation: from metal to wood, from food to plastic, etc.

Six Sigma is a highly structured process to improve quality using specific methods and analytic tools. Six Sigma is a robust continuous improvement strategy and process that includes cultural methodologies such as Total Quality Management (TQM), process control strategies such as Statistical Process Control (SPC) and other

statistical tools. It uses a structured systems approach to problem-solving and strongly links initial improvement goal targets to bottom-line results.

Theory of Constraints is based on the fact that, like a chain with its weakest link, in any complex system at any given point in time, there is most often only one aspect of that system that is limiting its ability to achieve more of its goal. For that system to attain significant improvement, that constraint must be identified and the whole system must be managed with it in mind.

Kaizen Blitz is an intensive and focused approach to Process Improvement. Kaizen means "continuous improvement" and Blitz means "lightning fast." This continuous improvement methodology will incorporate all elements of Lean Manufacturing Tools such as the 5Ss, Workplace Organisation and Standardisation, Cells, Pull, Set-up Reduction, and Line Balancing. To be successful each team will need to be empowered, they will need to have freedom to make changes, and they will need to be good analysers, creative, and problem solvers. This combination will allow teams to make rapid improvements to a specific product or process.

LEAN MANAGEMENT — BEST PRACTICE CHECKLISTS

It usually is recommended that an organisation goes through an in-depth process analysis to implement a Lean methodology. Those who would like to immediately find areas to improve can jump straight to best practice checklists. The concept behind this process is that an organisation that can adopt best practices and immediately switch their process will pick up significant Lean benefits. Examples of short best-practice checklists are provided below. Note that those recommendations could vary depending on the nature and landscape of the organisation.

- · Accounts payable
- Billing
- Budgeting
- · Cash management
- Collections

- Costing
- Inventory
- · Financial statements
- · General ledger
- Payroll

| Accounts Payable Best Practices | YES | NO | N/A | COMMENTS |
|---|-----|----|-----|----------|
| Audit expense report | | | | |
| Automate expense reporting | | | | |
| Automate payments for repetitive invoicing | | | | |
| Automate three-way matching | | | | |
| Automate value-added tax analysis | | | | |
| Centralise the accounts payable function | | | | |
| Create direct purchase interfaces to suppliers | | | | |
| Create online purchasing catalogue | | | | |
| Digitise accounts payable documents | | | | |
| Directly enter receipts into computer | | | | |
| Eliminate manual checks | | | | |
| Have suppliers include their supplier numbers on invoices | | | | |
| Internet-based monitoring of credit card purchases | | | | |
| Issue standard account code list | | | | |
| Link corporate travel policies to an automated expense reporting system | | | | |
| Link supplier requests to the accounts payable database | | | | |
| Pay based on receiving approval only | | | | |
| Receive billings through electronic data interchange (EDI) | | | | |
| Reduce required approvals | | | | |
| Request that suppliers enter all invoices through a website | | | | |
| Shift incoming billings to an EDI data-entry supplier | | | | |

| Accounts Payable Best Practices | YES | NO | N/A | COMMENTS |
|--------------------------------------|-----|----|-----|----------|
| Shrink the supplier base | | | | |
| Substitute petty cash for checks | | | | |
| Substitute wire transfers for checks | | | | |
| Transmit expense reports by email | | | | |
| Use blanket purchase orders | | | | |
| Use procurement cards | | | | |
| Use signature stamps | | | | |

| Billing Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Add carrier route codes to billing addresses | | | | |
| Automatically check errors during invoice data entry | | | | |
| Computerise the shipping log | | | | |
| Ensure delivery person creates the invoice | | | | |
| Ensure delivery person delivers the invoice | | | | |
| Process early billing of recurring invoices | | | | |
| Issue electronic invoices through the Internet | | | | |
| Issue single, summarised invoices each period | | | | |
| Offer customers secure Internet payment options | | | | |
| Print separate invoices for each line item | | | | |
| Reduce number of parts in multi-part invoices | | | | |
| Replace inter-company invoicing with operating transactions | | | | |
| Track exceptions between the shipping log and invoice register | | | | |
| Transmit transmissions via electronic data interchange (EDI) | | | | |
| Use automated bank account deductions | | | | |

| Budgeting Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Automatically link the budget to purchase orders | | | | |
| Budget by groups of staff positions | | | | |
| Clearly define all assumptions | | | | |
| Clearly define all capacity levels | | | | |
| Create a summarised budget model for use by upper management | | | | |
| Establish project ranking criteria | | | | |
| Establish the upper limit of available funding | | | | |
| Identify step-costing change points | | | | |
| Include a working capital analysis | | | | |
| Issue a budget procedure and timetable | | | | |
| Link to performance measurements and rewards | | | | |
| Reduce the number of accounts | | | | |
| Simplify the budget model | | | | |
| Store budget information in a central database | | | | |
| Use activity-based budgeting | | | | |
| Use flex budgeting (use cost drivers) | | | | |
| Use online budget updating | | | | |

| Cash Management Best Practices | YES | NO | N/A | COMMENTS |
|---|-----|----|-----|----------|
| Implement area-concentration banking | | | | |
| Consolidate bank accounts | | | | |
| Apply controlled disbursements | | | | |
| Set up electronic funds transfer | | | | |
| Use lockbox collections | | | | |
| Online access to bank account information | | | | |
| Create positive pay system | | | | |
| Proliferate petty-cash boxes | | | | |
| Utilise an investment policy | | | | |
| Zero-balance accounts | | | | |

| Collections Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Access to customer assets database | | | | |
| Access to customer orders database | | | | |
| Automate bankruptcy notification | | | | |
| Automate notification of overdue invoices | | | | |
| Issue automatic dunning letters | | | | |
| Use collection call database | | | | |
| Utilise collection call stratification | | | | |
| Set customer-order exception tracking | | | | |
| Grant percentage discounts for early payment | | | | |
| Immediate review of unapplied cash | | | | |
| Link to comprehensive collections software package | | | | |
| Use lockbox collections | | | | |
| Set pre-approved customer credit | | | | |
| Simplify pricing structure | | | | |
| Standardised credit level determination system | | | | |
| Write off small balances with no approval | | | | |

| Costing Best Practices | YES | NO | N/A | COMMENTS |
|---|-----|----|-----|----------|
| Audit bills of material | | | | |
| Audit labour routings | | | | |
| Eliminate high-leverage overhead allocation bases | | | | |
| Eliminate labour variance reporting | | | | |
| Follow a schedule of inventory obsolescence reviews | | | | |
| Implement activity-based costing | | | | |
| Implement target costing | | | | |
| Limit access to unit of measure changes | | | | |
| Review cost trends | | | | |
| Review material scrap levels | | | | |
| Revise traditional cost accounting reports | | | | |

| Inventory Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Audit all inventory transactions | | | | |
| Audit bills of material | | | | |
| Compare recorded inventory activity to on-hand inventories | | | | |
| Lock down the warehouse area | | | | |
| Modify the bills of material based on actual scrap levels | | | | |
| Move inventory to floor stock | | | | |
| Review inventory returned to the warehouse | | | | |
| Segregate customer-owned inventory | | | | |
| Streamline the physical count process | | | | |
| Track inventory accuracy | | | | |
| Verify that all receipts are entered in the computer at once | | | | |

| Financial Statements Best Practices | YES | NO | N/A | COMMENTS |
|---|-----|----|-----|----------|
| Assign closing responsibilities | | | | |
| Automate recurring journal entries | | | | |
| Automate the cut-off | | | | |
| Complete allocation bases in advance | | | | |
| Conduct daily review of the financial statements | | | | |
| Conduct transaction training | | | | |
| Continually review wait times | | | | |
| Convert serial activities to parallel ones | | | | |
| Create a closing schedule | | | | |
| Document the process | | | | |
| Eliminate multiple approvals | | | | |
| Eliminate small accruals | | | | |
| Move operating data to other reports | | | | |
| Reduce investigation levels | | | | |
| Restrict the level of reporting | | | | |
| Restrict the use of journal entries | | | | |
| Train the staff in closing procedures | | | | |
| Use cycle counting to avoid month-end counts | | | | |
| Use internal audits to locate transaction problems in advance | | | | |
| Use standard journal entry forms | | | | |
| Write financial statement footnotes in advance | | | | |

| General Ledger Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Construct automated interfaces to software that summarises into the general ledger | | | | |
| Create general ledger drill-down capability | | | | |
| Eliminate small-balance accounts | | | | |
| Modify account code structure for storage of ABC information | | | | |
| Overlay the general ledger with a consolidation and reporting package | | | | |
| Reduce the chart of accounts | | | | |
| Restrict use of journal entries | | | | |
| Subsidiaries update their own data in the central general ledger | | | | |
| Use automated error-checking | | | | |
| Use data warehouse for report distribution | | | | |
| Use forms/rates data warehouse for automated tax filings | | | | |
| Use identical chart of accounts for subsidiaries | | | | |
| Use the general ledger as a data warehouse | | | | |

| Payroll Best Practices | YES | NO | N/A | COMMENTS |
|--|-----|----|-----|----------|
| Automate fax-back of payroll forms | | | | |
| Automate vacation accruals | | | | |
| Avoid job costing through the payroll system | | | | |
| Consolidate payroll systems | | | | |
| Disallow pre-payments | | | | |
| Give employees direct access to deduction data | | | | |
| Link payroll changes to employee events | | | | |
| Link the 401(k) plan to the payroll system | | | | |
| Link the payroll and human resources databases | | | | |
| Minimise payroll cycles | | | | |
| Prohibit deductions for employee purchases | | | | |
| Send remittances as email messages | | | | |
| Use bar-coded time clocks | | | | |
| Use biometric time clocks | | | | |
| Use direct deposit | | | | |

FURTHER READINGS

CGMA

- Global Management Accounting Principles[©]
- Essential Tool for Management Accountants
- On-Demand / Self-Study Resources:
 - Lean Manufacturing
 - Lean Six Sigma

AICPA

- On-Demand / Self-Study Resources:
 - Improving Operations and Efficiency
 - Lean Accounting: Higher Profits by Streamlining Operations

Harvard Business Review

- Lean Knowledge Work
- From Lean Production to the Lean Enterprise
- Why the Lean Start-Up Changes Everything

McKinsey & Company

- Lean Manufacturing Resources
- The Lean Management Enterprise
- The Organization That Renews Itself: Lasting Value From Lean Management
- Next Frontiers for Lean

About the tool

This tool was developed from the AICPA continuing professional education course, "Critical Tools for Today's Controller and CFO." This full publication is available online as a self-study resource from cpa.com.

Acknowledgements

We would like to thank all of those who contributed their time, knowledge, insight and experience in order to develop this tool.

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May 2015

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