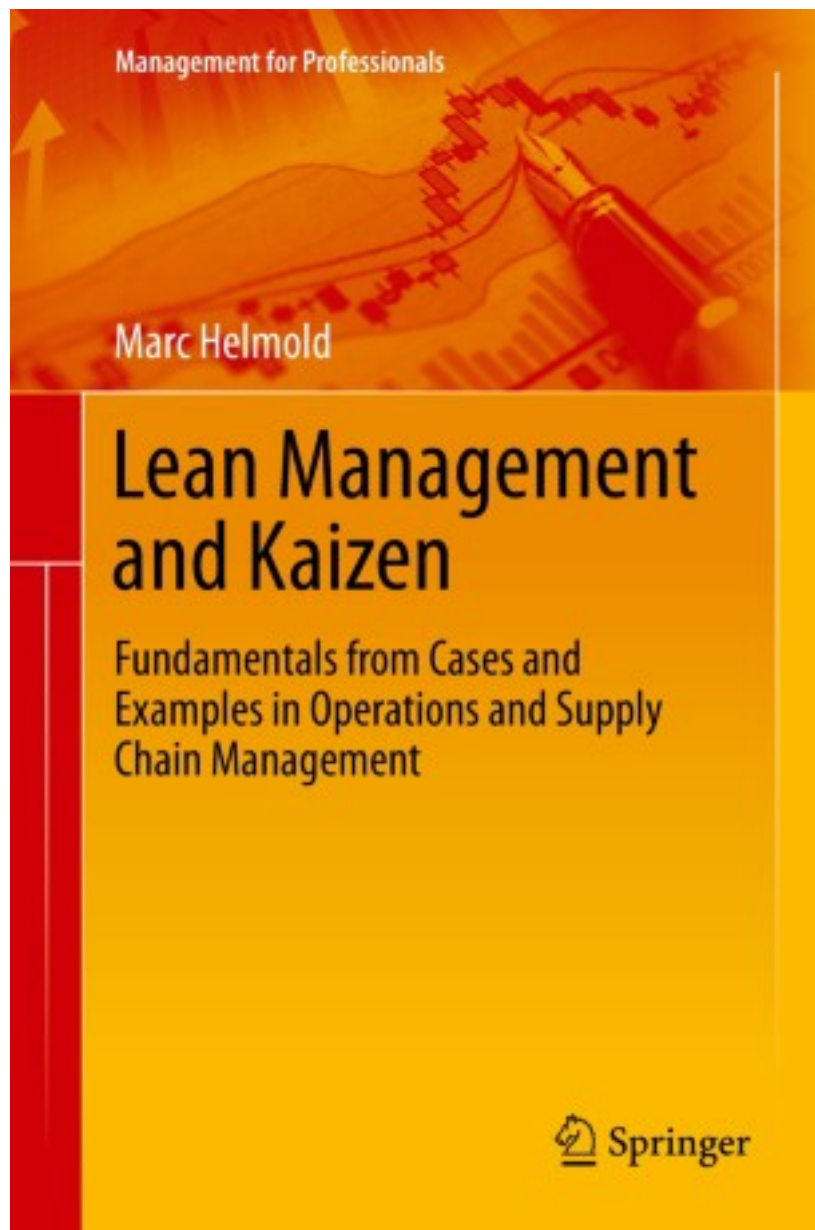


Lean Mgt and Kaizen

Marc Helmold

Springer - 2020



Content

PDF

Basics in Lean Management Marc Helmold

Pages 1-14

The Cultural Change Towards Lean Management Marc Helmold

Pages 15-23

Kaizen: Continuous Improvements in Small Steps Marc Helmold

Pages 25-30

Waste and Value-Added Marc Helmold

Pages 31-44

Lean Management as Part of the Corporate Strategy Marc

Helmold

Pages 45-55

Leadership and Empowerment Marc Helmold

Pages 57-64

Lean Management in Operations Marc Helmold

Pages 65-72

Lean Management in the Product Development Marc Helmold

Pages 73-77

Principles of a Lean Production System Marc Helmold

Pages 79-89

Lean Management on the Upstream (Supply Side) Marc Helmold

Pages 91-106

Lean Management on the Downstream (Demand Side) Marc

Helmold

Pages 107-112

[Lean Management KPI and OKR](#) Marc Helmold

Pages 113-122

[The Human Side of Lean Management](#) Marc Helmold

Pages 123-129

[Lean Management and Artificial Intelligence \(AI\)](#) Marc Helmold

Pages 131-137

[Sustainability and Lean Management](#) Marc Helmold

Pages 139-143

[Lean Management in the Service Industry](#) Marc Helmold

Pages 145-153

[Lean Management in Healthcare Sector](#) Marc Helmold

Pages 155-159

[Lean Management in the Education Sector](#) Marc Helmold

Pages 161-167

[Lean Audits and Quality Management Systems \(QMS\)](#) Marc Helmold

Pages 169-172

[Outlook of Lean Management](#) Marc Helmold

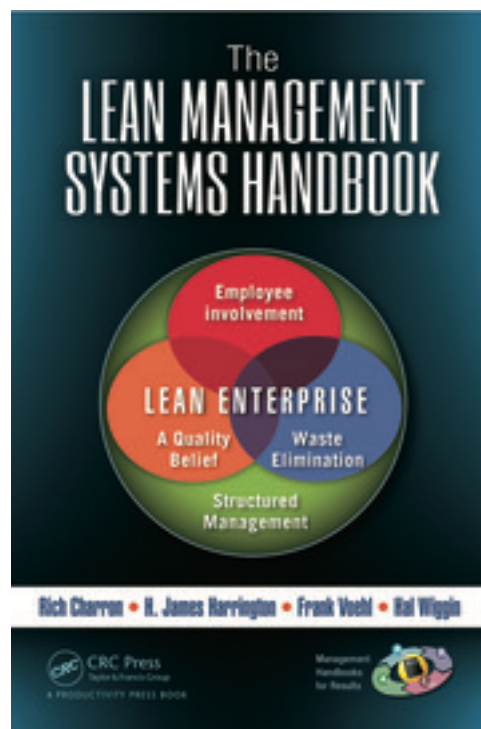
Pages 173-181

Back Matter Pages 183-188

[PDF](#)

The Lean Management Systems Handbook

Rich Charron, H. James Harrington, Frank Voehl, Hal Wiggin
1st Edition - 2015



Content:

Introduction to Lean Management

In a Nutshell

Overview

- Dawn of Lean Manufacturing

- Porsche and the Lean Transformation

Performance Management

- Raw Material, Work-in-Process, and Finished Goods Flow

- Operator Flow in Relation to Machines

- Information Flow

- Engineering Flow

Asset Management
Resource Management
 Cellular Manufacturing
Risk Management
Lean Management System Deployment Model
 Lean Performance Management
 Lean Workers Cross-Training
 Change Management for Senior Management Teams
 In-House Lean Deployment Projects
 Toyota Lean Management System Explained
 Lean Management and Green Revolution
Summary
References

History Of Lean

In a Nutshell
Overview
Lean Techniques
Venetian Arsenal (1104–1800)
Eli Whitney (1792–1805)
Eli Terry (1772–1852)
Frederick W. Taylor (1856–1915)
Frank Gilbreth (1895–1924)
National Cash Register Company (1896)
Henry Ford Sr. (1863–1947)
Charles Bedaux (1887–1944)
Walter L. Shewhart (1891–1967)
Harold F. Dodge (1893–1976) and Henry Romig (1893–1972)
Henry Ford II (1917–1987)
Kaoru Ishikawa (1915–1989)
Armand V. Feigenbaum (1922–Present)
Taiichi Ohno (1912–1990)
Shigeo Shingo (1909–1990)
Phil Crosby (1926–2001)
Process Benchmarking (1947–Present)
Joe Juran (1904–2008)
Yoji Akao (1928–Present)

Ibm's 1980S Approach to Quality Improvement
W. Edwards Deming (1900–1993)
Total Quality Management (1984)
Eliyahu Moshe Goldratt (1948–2011)
Fast Action Solution Technique (1980)
Malcolm Baldrige National Quality Award (1987)
Bill Smith (1929–1993)
Lean Manufacturing (1988)
Michael L. George (2002)
Jeffrey K. Liker (2012)
Lean Management Systems (2014)
Summary

House of Lean (Foundations of a Lean Management System)

In a Nutshell

Introduction

House of Lean Management

- Transition to the House of Lean Management

- Lean Activity Model

- A Framework for Lean Management Implementation

- Inclusion of Lean Management System Indicators and Metrics

- Conditions of a Lean Learning Enterprise

- Lean Socio-Technical System

- Lean Educational System

- Lean Change Management

- Four Pillars of the Lean Management Model

- Summary of the House of Lean Management

Five Foundation Stones of the Lean Management System

- Foundation Stone I: Process Management Excellence

 - Two Approaches to Process Management

- Foundation Stone II: Project Management Excellence

- Foundation Stone III: Change Management Excellence

- Foundation Stone IV: Knowledge Management Excellence

 - What is Knowledge?

- Foundation Stone V: Resource Management Excellence

- Documents Needed for the Lean Management

- System Strategic Vision

Strategic Vision Sponsor's Role

Summary

Useful References and Associated Readings

Lean Management Systems

In a Nutshell

Overview

- Toyota Challenge

- Views on Toyota's Management

Lean Management System

- Education

- Application

- Communication

Defining Your Lean Management System

- Lean Management System Scorecard

- Learning Management Model (Senge)

- Strategy Management Model (Jackson)

 - Nine Keys to Lean Management System

 - Control Points

 - How to Score

 - About the Score

- Operations Management Model (Shingo)

 - Shingo Model Versus Common Practices

- Summary

- Reference

Lean Socio-Technical System: on Developing a Lean Culture

In a Nutshell

Overview

- Lean Culture Defined

- Psychological Human Needs

Employee Behaviour Drivers

- Measures Drive Behaviour

- Beliefs Drive Behaviour

- Motivation Defined

- Motivation as the Driving Force

- Fear Drives Behaviour

Hierarchy of Needs

Theory X and Theory Y Management Philosophies

Key Social System Implementation Challenges

Summary

Lean Educational System

In a Nutshell

Overview

Lean is for Everyone

Purpose of a Lean Educational System

Lean Education System Starts with Management

Lean Education Strategy

About Learning Management Systems

Lean Management Education Description

Lean Educational System: Lean Learning Cycle™

Lean Learning Activities

Lean University

Employee Road Maps and Cross Training

Education Deployment (Hoshin Kanri)

Lean Educational System Definition

Knowledge Application (Kaizen)

Kaizen and You

Kaizen and Teams

Kaizen and Process Troubleshooting

Knowledge Sharing

Grading Outcomes

Key Education System Implementation Challenges

Time and Resource Commitment

Discarding Old Beliefs

Transitioning to a Learning Organisation

Summary

Waste Identification

In a Nutshell

Overview

What is Variation?

How Do we Chart Variation?

Why is Understanding and Controlling Variation So Important?

What is Waste?

Defining the Value-Added Work Components

How Does Waste Creep Into a Process?

Power of Observation

Seeing with New Eyes

Waste 1: Overproduction

What Causes Overproduction?

How to Identify Overproduction

Waste 2: Excess Inventories

What Causes Excess Inventory?

How to Identify Excess Inventory

Waste 3: Defects

What Causes Defects?

How to Identify Defects

Waste 4: Extra Processing

What Causes Processing Waste?

How to Identify Processing Waste

Waste 5: Waiting

What Causes Waiting Waste?

How to Identify Waiting Waste

Waste 6: Motion

What Causes Motion Waste?

How to Identify Motion Waste

Waste 7: Transportation

What Causes Transportation Waste?

How to Identify Transportation Waste

Waste 8: Under-utilised Employees

What Causes Under-utilised Employees Waste?

How to Identify Under-utilised Employees Waste

Waste 9: Behaviour

How to Identify Behaviour Waste

Summary

References

Waste Quantification: Learning to Measure

In a Nutshell

Overview

Background

Measurement Systems Theory

Lean Performance Measurement

From Lean Production to the Lean Enterprise

Assessing Your Current Measurement System

Technical Attributes of Lean Measures

Technical Attributes of Good Measures

Lean Production Measurement Process

Evaluating Your Lean Measures Technical Characteristics

Policy Deployment Model

Ensuring Success of the Model in a Lean Environment

Technical Aspects of Lean Measures

Behavioural Attributes Associated with Lean Measures

Cultural Attributes Associated with Lean Measures

Performance Measurement and Lean Production Processes

Measurement Visibility

Measurement Relationships

Single Source of Measurement Information

Measurement Systems Practice

Why Measure

Types of Measures

Measures and the Supplier–Customer Relationship

Lean Measures Versus Non-Lean Measures

How Lean is Your Current Measurement System

Critical Components of the Lean Measurement System

Selecting New Lean Measures

Measuring Performance Over Time

Summary

Lean Concepts, Tools, and Methods

Overview

Traditional Organisation Operational Philosophy

Lean Operational Philosophy

Lean Management Concepts

Waste

Value-Added Activities

No-Value-Added Activities

Business-Value-Added Activities

Waste Identification

Waste Elimination

Value Stream

Value Stream Management

Continuous Flow

Pull Systems

Point of Use Storage

Quality at the Source

Just-in-Time

Kaizen

5M's: Materials, Machines, Manpower, Methods, And

Measurements

Key Process Input Variables

Key Process Output Variables

Lean Tools

5S Workplace Organisation and Standardisation

Just the Facts

5S Means Action

Common Omissions when Implementing 5S

Overall Equipment Effectiveness

Just the Facts

How to Use OEE

Applying OEE in Non-manufacturing Environments

Mistake Proofing

Just the Facts

How to Use Mistake Proofing

Cellular Manufacturing

Just the Facts

How to Create Manufacturing Cells

Kanban

Just the Facts

How to Use Kanban

Value Stream Mapping

Just the Facts

Managing With Maps

Visual Controls

Just the Facts

How to Use Visual Controls

The Power of Lean Concepts and Lean Tools

Composite U-Cell Case Study

Lean Six Sigma Concepts and Tools Used Summary

References

Three Faces of Change: Kaizen, Kaikaku, and Kakushin

In a Nutshell

Introduction

Resistance to Change

Fear of the Unknown

Measurement Systems

Beliefs

Overcoming Resistance to Change

Leaving Old Beliefs Behind

Considering New Possibilities

Emergence of Lean Six Sigma

Three Faces of Change

Kaizen: Continuous Improvement

Kaizen and you Method

Kaizen for Process Troubleshooting

Step 1: Go to Gemba

Step 2: Conduct Gembutsu

Step 3: Take Temporary Countermeasures on the Spot

Step 4: Find Root Causes

Step 5: Standardise to Prevent Recurrence

Kaizen Teams

Possible Target Areas for Kaizen Teams

Preparing for Kaizen

Team Member's Roles in Kaizen

Overcoming Obstacles During Kaizen

Kaikaku: Transformation of Mind

How do We Recognise Kaikaku (Transformation of Mind)?

Kaikaku in Cell Design

Kaikaku in Facility Layouts

Kakushin (Innovation)

The 20–20 Innovation Process

Summary

References

Lean Thinking 101

In a Nutshell

Overview

Origins of Lean Thinking

Dell Lean Thinking Journey

Ebay Way to Lean Thinking

Microsoft Weighs in

Basic Values and Principles of Lean Thinking

Dreaming About Perfection

Apple and Perfection

Basic Principles of Lean

Add Nothing But Value (Eliminate Waste)

Center on the People Who Add Value

Flow Value from Demand (Delay Commitment)

Optimise Across Organisations

References

Integrating Lean Management with DMAIC/DMADV

In a Nutshell

Overview

Goals of Lean Management

Goals of DMAIC/DMADV Lean Management Systems

DMAIC Process Clarified...

Recap of How DMAIC Works

Dmadv Process Clarified for LMS

Overview of How Dmadv Works in LMS

Comparing DMAIC and DMADV-LMS*

Integrating Lean with DMAIC/DMADV

Lean DMADV-LMS Framework

Need for Tollgate Road Maps

DMADV-LMS Tollgate Road Map

Root Cause Analysis and Lean Management

Groups of Lean Management System–Related Root Cause
Analysis Tools
Summary
Reference

Integrating Lean and Theory of Constraints

In a Nutshell

Overview

Definition of Constraint

Comparing Lean and Theory of Constraints

Achieving Lean Effectiveness with Theory of Constraints

Tips for Lean–Theory of Constraints Projects

Theory of Constraints Critical Chain Project Management and
Little's Law

Integrating Lean and Six Sigma Under Theory of Constraints

Example

Summary

Lean Management System: Organisational Master Plan

In a Nutshell

Overview

Phase I: Evaluate the Lean Management System Methodology

Activity 1: Starting the Interest in Lean Management Systems

Activity 2: Search for Knowledge on Lean Management

Systems

Activity 3: Conducting the Lean Management System

Assessment

Activity 4: Analyse Application of Lean Management System
(Conceptual Evaluation)

Activity 5: Prepare Management Report (Deploying A Lean
Management System)

Activity 6: Present Findings to Top Management

Phase II: Define Opportunities within the Organisation

Activity 1: Define the Key Controllable Factors and Develop an
As/Is Statement for Each

Activity 2: Conduct a Study to Define and Quantify the
Opportunities

Activity 3: Compare to Present-Approved-Improvement Plan
Projects to Be Sure There Is No Overlap

Activity 4: Present the Results to Top Management

Activity 5: Assign a Project Manager and Project Team

Activity 6: Approve Phase III Budget

Phase III: Develop the Implementation Plan

Activity 1: Develop Vision Statements for Each of The KCFS

Activity 2: Define Desired Behaviours

Activity 3: Prepare Individual Improvement Plans

Activity 4: Combine the Individual Improvement Plans

Activity 5: Prepare a Cost–Benefit Analysis (ROI)

Activity 6: Develop a Set of Performance Goals

Activity 7: Prepare the Lean Management System's Project Plan

Activity 8: Present the Lean Management System's Project Plan
to Management

Activity 9: Include the Lean Management System's Project Plan
Into the Strategic Improvement Plan and the Organization's Annual
Operating Plan

Phase IV: Implement the Lean Management System Plan

Activity 1: Assign Implementation Teams

Activity 2: Define What will Be Done with Surplus People

Activity 3: Assign a Project Manager to All Stand-Alone Projects
Starting in the Next 6 Months

Activity 4: Measure and/or Define the As/Is Status

Activity 5: Form and Train the Implementation Project Teams and
the Subproject Team Members

Activity 6: Conduct an Organisational Change Management
Assessment And Develop Appropriate Mitigation Plans

Activity 7: Train the People Who are Impacted By the Change

Activity 8: Implement the Change

Activity 9: Conduct Phase IV Tollgate

Phase V: Measure the Results

Activity 1: Define What Measurement Should be Affected by
Each of the Lean Management System
Projects

Activity 2: Define What, Where, and How Improvement will be
Measured

Activity 3: Define How Changes in Behavioural Patterns will be Observed

Activity 4: Develop and Implement the Reporting System

Activity 5: Train the Related Personnel in How to Collect Data

Activity 6: Collect and Analyse the Data

Activity 7: Conduct the Phase V Tollgate

Activity 8: Reward the Installation and Lean Management

System Teams Based on Their Impact

Phase VI: Continuous Improvement

Activity 1: Sustaining The Gains

Activity 2: Ongoing Improvement

Summary

Reference

The Need for Facilitation

In a Nutshell

Overview

What is Facilitation?

Some Basic Definitions

When Facilitation is Appropriate

Overview of Competencies and Characteristics

Where Do You Stand as a Facilitator?

What Specifically Comprises The Process of Facilitation?

Communications

Icebreakers

Humor

Encouragement and Praise

Listening

Questioning

Checking

Giving Feedback

Nonverbal Communication

Speaking

Writing

Group Dynamics and Development

Simplify the Complex

Plan for, Structure, and Control Meetings and Lean Events

Provide a Safe Learning and Working Environment

- Help People See and Understand

- Help People Gather and Analyse Information to Drive Operational Improvements

 - Only Collect the Right Important Data

 - Be Concerned About Reliability and Validity

 - Get Help

- Help People Make Decisions

 - Collaboration and Consensus

 - Force Field Analysis as a Powerful Tool

 - Multi-voting as a Simple Technique for Helping A Team

Reduce a Large Number of Ideas

- Eliminating Non-Value-Added Activities

- Focus on Process

- Achieving Pull and Flow

- Striving for Zero Defects

Summary

Facilitating Lean Management Systems (Developing A Lean Culture and Change Management Environment)

In a Nutshell

Lean Culture Development

- David Mann's Lean Culture

Change Management

- Managing Transitions Model

- Process of Transitions

- Helping Others to Change

- Managing Complex Change

Facilitating Lean Management

- The Facilitators Guide to Lean Management

- Organisational Levels and Alignment

The Organisation as a System

- The Processing System Hierarchy Model

 - The Organisation as Systems Thinking

Catchball

- Approach, Deployment, Learning, and Integration

- Dmaic Roadmap

Leader Standard Work

Daily Accountability Process

Visual Controls

Some Tools to Facilitate Lean Management System Annual

Improvement Projects

Use of Project Charters

Project Selection Matrix Template

Quality In Daily Work Accountability

Summary

Epilogue: The Shadow of the Leader in A Systems Thinking
Environment

Appendix

Index