

B U I L D I N G
O R G A N I Z A T I O N A L
F I T N E S S

Management Methodology
for Transformation
and Strategic Advantage

Ryuji Fukuda

Translated by
Noriko Hosoyamada



CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

C O N T E N T S

Publisher's Message	xii
Preface	xvii
CHAPTER 1 MANAGING FOR SHAPING THE FUTURE	1
Improvement, Innovation, and Transformation	1
Management Must Always Transform	2
Securing Profits	3
Fostering and Using Improvement and Development Powers	4
What Should Management Technologies Be Used For?	7
The Effectiveness and Limitations of Management Technologies	8
Types of Management Technologies and Their Users	10
The Speed of Transformation Is a Function of Organizational Fitness	10
Seven Conditions for the Fast Track	13
Condition 1: Top Management Commitment	13
Condition 2: Superior Development Capabilities	14
Condition 3: Superior Managing Capabilities	14
Condition 4: Effective In-House Education and On-the-Job Coaching	15
Condition 5: Total Active Participation of Staff Departments	17

Condition 6: Enabling Structures to Promote Improvement in Daily Work	19
Condition 7: Enabling Structures That Encourage Creative Improvements by Integrating Knowledge and Experience	19
Some Characteristic Examples	20
Universal Applicability	20
Urgency and New Challenge	21
In-House Education: The Basis for Improvement Activities	22
Improvement That Reflects Each Company's Individuality	23
How Long Does It Take to Become a First-Class Company?	25
CHAPTER 2 ORGANIZING ACTIONS FOR IMPROVEMENT/ TRANSFORMATION: THE POLICY/OBJECTIVE MATRIX	27
Managing Improvement Activities	27
Making Top Management Commitment Tangible	29
Combining Policy Management and Management by Objectives	29
Achieving Objectives as Planned	30
How to Build a P/O Matrix	32
Section I: Policy	34
Section II: Objectives	44
Section III: Targets	46
Section IV: Principal and Supporting Members and Leaders	47
Section V: Scheduling	49
Section VI: Overall Effects	49
When to Prepare a P/O Matrix	50
Integrating with Culture	53
Responsibility for Saying No	55
How to Use the P/O Matrix	55
Visible Management	55
True Volunteerism	56
When Are People Most Motivated?	57

Strengthening Leadership for Improvement	57
Quick Response to Changes in Surrounding Environment	58
Committing to Profit	60
Removing Obstacles	61
A Long Way, But ...	65

CHAPTER 3 | STRENGTHENING IMPROVEMENT POWER THROUGH SEDAC

67

Creativity and Everyday Business	67
From <i>CEDAC</i> to <i>SEDAC</i>	68
How to Develop a <i>SEDAC</i>	69
Speed and Power	74
Purposiveness	74
Professionalism	81
Linkage Between the P/O Matrix and <i>SEDAC</i>	82
Breaking Down the P/O Matrix with a Systematic Diagram	82
<i>SEDAC</i> at Each Level	84
Types of <i>SEDAC</i>	84
Expandable Cause-and-Effect <i>SEDAC</i>	85
Arrow Diagram <i>SEDAC</i> for Staff Function Improvement	86
FMEA <i>SEDAC</i> for Prevention by Prediction	86
PDPC and <i>SEDAC</i> Side by Side	86
Case Examples of Results from <i>SEDAC</i> Implementation	87

CHAPTER 4 | FUNDAMENTALS OF IMPROVEMENT THROUGH SEDAC

97

Thoughts on the Improvement Process	97
Idea Generation	97
Using the Full Power of an Organization	100
<i>SEDAC</i> as a Vehicle for Moving Forward	101
The Leader's Role in Constant Thinking	102

Improvement Should Be Enjoyable	103
Trial-and-Error Through Intrinsic Technology, Knowledge, and Experience	103
Reliable Standards Development	104
A System for Learning from Failure—We Have No Alternative Feedback	104
Empowerment and Failure Prevention	107
Understanding Field Science	108
An Encounter with Dr. Jiro Kawakita	108
The Three Sciences and SEDAC	109
Study Group Activities for Companywide Integration	111
CHAPTER 5 STAFF FUNCTION IMPROVEMENTS	113
Lessons Learned from Past Mistakes	113
The Uniform Control Syndrome	113
The Measurement Obsession Syndrome	114
Advanced Techniques	115
Aspects of Improvement	115
Attack the Work in Front	115
Always Find Ways to Measure	117
SEDAC on an Arrow Diagram	121
Effective Use of Arrow Diagram Features	121
Staff: An Engine for Improvement	123
SEDAC on FMEA	127
Use of Reliability Engineering	127
Accelerating with Prevention by Prediction	133
Sharpening Engineering Sensibility	135
Reliability Improvement and Cost	136
PDPC and SEDAC	139

TPM and SEDAC	146
Organizing Effective Measures on a Weibull Distribution	146
Doing SEDAC with Textbook in Hand	151
New Equipment Development and Maintenance	156
 An Organization for Companywide Improvement	 158

**CHAPTER 6 | USING WINDOW ANALYSIS FOR ACCURATE
FACT FINDING AND EFFECTIVE COUNTERMEASURES 163**

Aims of Window Analysis	163
Origins of Window Analysis	164
How to Use Window Analysis	165
 Window Analysis Case Studies	 168
Case 1: The Coffee That No One Drank	168
Case 2: A Mistake-Proofing Mistake	170
Case 3: Too Busy to Remember	173
Case 4: A Ten-Day Wait	174
Case 5: An Accident Six Years Later	176
 Lessons Learned from Window Analysis	 178
Difficulty in Fact-Finding	180
An Advantage of Window Analysis: Prevention by Prediction	180
 Orienting Action	 180
Dramatic Results	183

CHAPTER 7 | STOCKLESS PRODUCTION AND SEDAC 187

Origins of Stockless Production	187
 Stockless Production: Eight Measures	 188
Production Is a Network of Processes and Operations	189
What Levels of Product Availability Do Your Customers Want?	192
What Indicators for Managing Production?	194
Lead Time and Work-in-Process Quantity	196

How to Promote Stockless Production	198
Developing a Promotion System Using the P/O Matrix	200
Implementation Using SEDAC	201
Computerization after Stabilizing Improvements	205
Securing Results Through the Scientific Approach	206
Challenging Delays in Information Flow with CIM	207
CAD/CAM: An Advanced Company's Weapon for Business	
Strategy Realization	213
Case 1: Melbo Suits Company	213
Case 2: National Bicycle Industries	214
CHAPTER 8 IMPROVING AND MAINTAINING	
ORGANIZATIONAL FITNESS	217
Intellectual Creativity: Practice Is the Key	217
Doing the Work or Being Forced to Do the Work?	218
Good Maintenance Amplifies Improvement Results	220
Use of Control Charts for Process Control	223
Living Control Charts	225
Trust and Everyday Checking Can Go Hand in Hand	229
Cautions in Using SEDAC	232
Agenda for Management Technology	234
Continuing to Develop Capabilities	234
Instituting Simplicity and Ease	236
Vitalizing the Suggestion System	237
Tomorrow	238
Direction of Changes	238
Such-and-Such Management Japonica	239
References	243
About the Author	247
Index	249