



CORPORATE DIAGNOSIS

setting the global
standard for excellence

THOMAS L. JACKSON
with CONSTANCE E. DYER

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Corporate Diagnosis

SETTING THE GLOBAL
STANDARD FOR EXCELLENCE



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Publisher's Message by Norman Bodek

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to Hemant, Kalyani, Sunaina, and Miheka

Nothing endures but change.

—Heraclitus

Publisher's Message

MANY COMPANY LEADERS ARE DISCOVERING that the world is getting smaller these days. Low-cost overseas competitors are coming up with quality innovations in their markets and closing the delivery gap. The effective response to this is *learning*, in every dimension:

- learning what the customers really value
- learning how world class rivals and noncompetitors are producing and delivering that value
- learning your company's position and what human and machine technology *needs to be learned companywide* to produce and deliver customer value better than anyone else
- learning to measure the company's success and stay on the winning course, year after year

Over the years, Productivity has taught many effective tools and methods for delivering customer value. In *Corporate Diagnosis*, we present a method for systematically measuring the success of such initiatives as part of a companywide improvement process.

This book is about knowing the score in your company. Corporate Diagnosis is a powerful way to understand your company's capabilities and track its progress against benchmarks set by world leaders in lean management. Going beyond the previous business results on which most companies base their policy decisions, Corporate Diagnosis gives you a systemic perspective of the company's status with its customers and competitors. Corporate Diagnosis rounds out the financials with an assessment of how well the company is achieving its current objectives and its goals for future growth and competitiveness.

Learning the score is followed by top management activities to determine what's most important to improve next, and then by companywide activities to make the change. Every year another diagnosis is conducted to see how well the company learned and developed, continuing the plan-do-check-act cycle of improvement. Corporate Diagnosis and the planning and improvement cycle are critical activities in the Lean Management System (described in detail in a companion volume, *Implementing a Lean Management System*).

Lean management is about operating the most efficient and effective organization possible, with the least cost and zero waste. It is an approach that requires companies to make smart use of their resources—their technology, their equipment, and especially the knowledge and skills of their people. Above all, lean management is about running an intelligent business, in which everyone from the shop floor to top management is aware of the company's capabilities and ensures that they are used appropriately and continually improved.

In helping companies master the lean management process, we have identified nine key areas of organizational learning that companies must measure and develop to secure their futures:

- Customer focus
- Leadership
- Lean organization
- Partnering
- Information architecture
- Culture of improvement
- Lean production
- Lean equipment management
- Lean engineering

Each of these interrelated keys breaks down into a set of more specific control points and checkpoints that help determine how to measure progress.

During the annual improvement cycle, top management determines which key areas to focus on and sets broad targets, then deploys the targets to the rest of the organization to make more concrete. Toward the end of the improvement cycle, top management uses Corporate Diagnosis to review how various parts of the company have challenged their targets and to score the development of the entire company in the nine key areas.

Numerical results are only part of the scoring in Corporate Diagnosis. To accurately determine the company's "lean quotient," managers also reflect on three other criteria:

- the company's systematic use of world class methods
- the deployment of methods throughout the company
- the cross-functional integration of the company in its methods and management

Companies are scored on a five-level spectrum of development ranging from traditional mass production to lean management excellence. These levels are like five stages of making a garden. First the ground is prepared, then certain areas are planted; with weeding and new planting a complete landscape develops, and ultimately it becomes a flourishing interconnected organism. Like a mature garden, an integrated lean organization is not built overnight, but through dedicated analysis, planning, and effort over time.

To keep the game interesting to all the players, scores are shared throughout the company on radar charts. These visual displays give everyone an instant picture of the current level of achievement and the company's ultimate goals, encouraging the effort to reduce waste and hit the lean management bull's-eye.

Chapter 1 of the book describes Corporate Diagnosis in the context of the Lean Management System and tells who needs to be involved for optimum results. It introduces the main elements of diagnosis, including the Diagnostic Questions, the Progress Tables, and the scoring system.

Chapter 2 is an overview of the Lean Management System, geared for managers who have not yet read *Implementing a Lean Management System*.

Chapter 3 takes the reader step-by-step through the audit process, from the preliminary questions to the site visit, scoring discussion, and celebra-

tion of progress. It gives guidelines for using the Progress Tables and Diagnostic Questions to develop company-specific substantive questions for the diagnosis.

Chapter 4 tells how to use the Progress Tables to interpret the observations and identify unit scores for each lean management control point. In addition, four generalized scoring criteria are presented in matrix form to help fine-tune the unit scores and determine companywide results. Various score-recording aids are introduced, including lean management radar charts.

Appendix A contains the Diagnostic Questions and Progress Tables for each of the Lean Management System control points. It should be emphasized that these questions and tables are truly the heart of the Lean Management System. Although we have grouped them in an appendix for ease of use, these materials are not peripheral to the process described in the chapters. The information they present is a rich and well-rounded essence that has been refined from our experience with companies at various levels of lean management development and with many different approaches to measuring that development. The symptoms shown in the Progress Tables are actually learning objectives that build from level to level, offering step-by-step directions for reaching lean management excellence. The questions and tables give a physical and conceptual picture of what a company will experience as it develops lean and profitable management. Study them carefully.

Appendix B is a useful Table of Concordances that links the Lean Management System control points with similar sections of the criteria of the world's major productivity and quality awards used by many companies to structure their improvement strategies. Included are the Baldrige Award, the Shingo Prize, the Deming Application Prize, and the PM Prize. Examples of Hiroyuki Hirano's *JIT Implementation Manual* and Iwao Kobayashi's *20 Keys to Workplace Improvement* are also linked to the Lean Management System.

This book will give you the framework for conducting a Corporate Diagnosis in your own organization. However, although it offers numerous guidelines, forms, and sample questions, it is not a recipe to simply "plug in" to your situation. To get meaningful feedback from this review, you must tailor it to fit your company and your market. Customers in different markets value different things in their suppliers; you need to frame your questions and scoring in terms of what your customers want now and may

want in the future—and what kind of organization must be in place to provide those outputs. Likewise, the Progress Tables we share as scoring aids offer some concrete measures based on the experiences of lean, world class companies—but the definition of world class is continually refined and improved. It is important to stay up to date on the results and methods of the best in class in your own business. Ultimately, you want your company to be the one setting that standard.

Productivity, Inc. has been teaching the elements of lean management and lean production since the late 1970s when the company first led study missions to Toyota and other Japanese industrial leaders, and brought to the West the ideas of Shigeo Shingo, developer of the Toyota production system. Since that time our consultants, trainers, and publications have helped thousands of companies in the United States and around the world learn how to implement lean methods, and we have learned in turn from their experiences. This book represents the distillation of many years of experience with the world's best strategies for manufacturing, and we are pleased to share it with you.

We express our appreciation to Tom Jackson for bringing his wisdom and experience to develop this diagnostic approach and to Connie Dyer for her substantial contribution to the definition of lean management key areas and control points, and to the Progress Tables. Thanks also to Diane Asay, editor in chief for Productivity Press, who valued this project and encouraged its development. Development editor Karen Jones gave helpful input and assistance in organizing and clarifying the text and illustrations. Vivina Reed provided essential editorial work on the rough manuscript. Productivity Press director Bill Stanton created the cover design and Gretchen Long designed the endpapers. The pages were designed by Shannon Holt, and art and type were composed by Rohani Design. Susan Swanson managed the prepress, with editorial assistance from Pauline Sullivan. Catchword, Inc. created the index.

Norman Bodek
Publisher

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CORPORATE DIAGNOSIS IS BASED ON a level-by-level approach to the development and improvement of business systems that is widely applied in Japan and is followed by leading companies in the United States. The elements of this approach have been adapted from numerous sources, including Iwao Kobayashi's *20 Keys to Workplace Improvement*, Hiroyuki Hirano's *JIT Implementation Manual*, Yoji Akao's *Hoshin Kanri*, and Alberto Galgano's *Companywide Quality Management*. In addition, we have drawn from the criteria of the world's major quality and productivity awards, including the Deming Application Prize, the PM Prize (TPM implementation), and the TP Management Prize, as well as the Malcolm Baldrige National Quality Award and the Shingo Prize for Excellence in Manufacturing.

Tom Jackson

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CHAPTER 1

Introduction

IN THE YEARS SINCE THE END of World War II a gradual revolution in manufacturing has been changing how the world makes and delivers goods and services. It is called lean production. Companies that have tried to implement lean production recognize that there is more to it than just applying the well-known methodologies imported from Japan. Approaches like just-in-time inventory control, quick changeover, mistake-proofing, total productive maintenance, and total quality management are powerful, but many companies fail to achieve the synergy they hope for in applying them. This is most often due to a lack of a logical and integrated implementation sequence that starts from where the company actually is and moves systematically toward the company's long-term business goals.

The Lean Management System fills this gap by providing a link between traditional strategic planning and the requirements for sustainable lean production. Just as important it connects the long-term development plan with daily improvement activities throughout the company.

A key step in the Lean Management System is a comprehensive diagnostic system called Corporate Diagnosis—a practical approach to company assessment that helps CEOs and management teams focus on what their companies must do to become more competitive. Corporate

Diagnosis continually benchmarks the company's strategic management system, its organizational structure, and its core strengths against the best practices and the best companies in the world. Whatever industry a company is in, whatever its approach to being the best in the marketplace, Corporate Diagnosis will help the company grow.

The Corporate Diagnosis should not be confused with technical audits such as product quality audits or ISO 9000 quality system audits. Corporate Diagnosis was first used in the early 1950s at Shin-Etsu Chemical Industry, a Japanese company that won the Deming Prize in 1953. Toyota Motor Company adopted the practice in 1962 as part of its implementation of companywide quality management. World class companies have institutionalized the Corporate Diagnosis and perform it at least once a year. Early in the process of introduction, companies often perform the diagnosis twice a year.

WHERE CORPORATE DIAGNOSIS FITS IN THE LEAN MANAGEMENT SYSTEM

This book is a companion volume to *Implementing a Lean Management System*, which maps out a comprehensive management system that supports lean production by aligning the firm's vision, strategy, structure, and capabilities with market realities. Readers unfamiliar with that book should study Chapter 2 of this work for an overview of the features of the Lean Management System. For those reading the two books together the following paragraphs will suffice to review the general framework.

The Lean Management System begins with a process of business renewal, in which the company assesses its competitiveness and plans for the future. The top management team augments its traditional strategic plan with a customer-focused vision and a long-term plan to develop the firm's technical and human resources. During the Business Renewal Process, a Corporate Diagnosis is done to set a baseline for the Development Plan.

Next, the top management team makes the company's vision and strategy concrete by initiating a Strategic Improvement Cycle with four phases, as shown in Figure 1-1.

In Phase I, Focus, the management team translates its business renewal strategy into a short-term (usually annual) policy, assigning concrete targets and responsibilities that can be easily understood by middle managers and

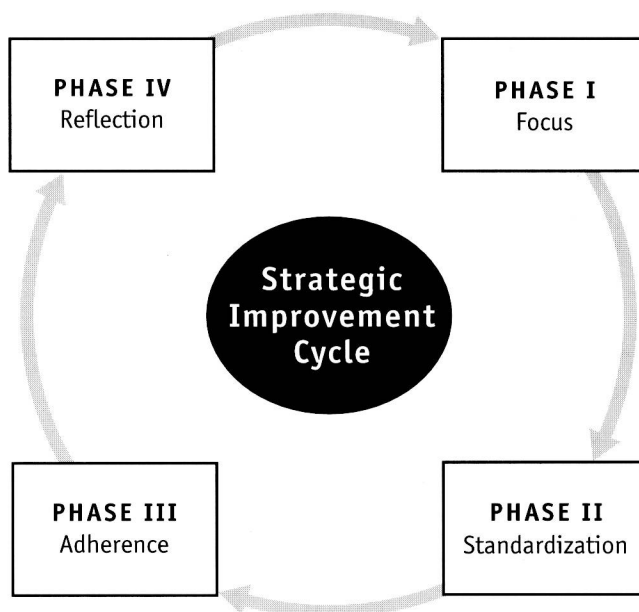


FIGURE 1-1.
THE STRATEGIC IMPROVEMENT CYCLE

employees. In Phase II, Standardization, the company deploys the policy targets and means to all managers and frontline team leaders, who in turn work with their employees to implement the policy by building increasingly specific targets and performance measures into daily work. During Phase III, Adherence, the company monitors improvement through managerial reports of work unit activities and results. Toward the end of the annual cycle, another Corporate Diagnosis is done to verify policy implementation and identify the current level of development. Finally, in Phase IV, Reflection, company leaders prepare for the next year’s improvement cycle by analyzing discrepancies between targets and actual performance, reviewing the development indicated by the Corporate Diagnosis, and identifying changes in the firm or business environment that challenge assumptions made in the previous Business Renewal Process.

The focal point of a Corporate Diagnosis is the CEO’s diagnosis, a formal top management audit during which the company leaders verify personally that the firm’s strategy and operational policies have been deployed and

implemented successfully. The purpose of top-level audits is to diagnose the strategic condition of the company. Hence, the top management audit has come to be called a “diagnosis” because management is checking the company’s “pulse”—its progress toward the fit and healthy state of lean management. Company leaders use the Corporate Diagnosis process to look for signs of organizational health or dysfunction and follow their assessment by prescribing corrective actions.

The goals of the Corporate Diagnosis are threefold:

- to check the consistency of each organizational unit’s improvement projects and daily activities with company policy and long-term strategy
- to identify important gaps within the company and in the competitive environment
- to promote the development of world class capabilities

Corporate Diagnosis turns strategic planning and implementation into a Plan-Do-Check-Act cycle that assures the company of the right strategy, structure, and strengths for long-term organizational health. Using Corporate Diagnosis should help the leadership of any company keep score on how well the company is building its capabilities and competitive advantages for the future.

In practice, the top management Corporate Diagnosis is conducted near the end of the annual Strategic Improvement Cycle and is preceded by two levels of ongoing analysis and reporting:

- Action team reports
- Deployment team reports

Action team reports. In the Lean Management System, actual improvement work is directed by action teams composed of shopfloor managers, team leaders, and staff. Each action team is led or co-led by one or more midlevel area managers. Action teams manage the work toward specific targets handed to them by higher-level management teams called deployment teams, made up of action team leaders from various functions. As activities progress, action team leaders conduct daily and monthly reviews of the

assigned improvement activities of workteams in their specific areas. At least monthly, the action team leaders submit status reports to apprise their deployment teams of progress and obstacles in implementation.

Deployment team reports. The deployment teams are led by members of the company's top management team (usually the head of a functional department). In the diagnostic process, their function is to respond to the action teams' information, and also to synthesize it, via monthly reports and annual audits, for the top management team that sets the company's annual policy and general targets. Deployment team leaders compile their target results and report them at top management meetings. These management reports set the stage for Corporate Diagnosis. The process in which they are used is described more fully in *Implementing a Lean Management System*.

WHO CONDUCTS THE CORPORATE DIAGNOSIS?

This book describes the audit process used by top management to assess every aspect of the company. Although we call this a "CEO's diagnosis" or "president's audit," in reality few individual CEOs or presidents have a sufficient grasp of the entire company to conduct this review without the assistance and wisdom of the functional and cross-functional leaders on the top management team. Chapter 3 offers guidelines for conducting team-based audits aimed at structured but open exchanges of opinions and ideas. This format should lead to better informed, more objective assessments of the company's achievements and challenges.

In small and even mid-sized companies, the chief executive and top management team may conduct the diagnosis for every area of the entire company. In larger companies, however, this process must be managed in stages. In such cases, teams of managers in charge of specific areas or functions perform preliminary audits of various work units. Since the Corporate Diagnosis is scored on the keys and control points of lean management, it makes sense for this managerial diagnosis to be conducted by the cross-functional deployment teams that defined and assigned the keys and control points during the Standardization phase of the Strategic Improvement Cycle. The reports and scores generated by these diagnostic teams are reviewed by top management before the formal CEO's diagnosis of the entire company. Even in smaller companies, the managers of various internal organizational units may find it useful to apply the Corporate