

Lean Machines For Worldclass Manufacturing And Maintenance

Achieving a long-term acceptable level of manufacturing profitability through productivity requires the total commitment of management teams and all staff in any manufacturing company and beyond. Awareness and continuous improvement of manufacturing costs behind losses and waste is the core goal of the Manufacturing Cost Policy Deployment (MCPD). Achieving this goal will continually uncover the hidden reserves of profitability through a harmonious transformation of the manufacturing flow, coordinated by the continuous need to improve manufacturing costs. Setting annual targets and means for manufacturing costs improvement (more exactly for costs of losses and waste, and the exact fulfillment of these) requires mobilization of all people in the company to carry out systematic improvement activities (kaizen) and systemic improvement actions (kaikaku) of the processes of each product family cost. The MCPD system was born out of careful observation of the challenges, principles, and phenomena of manufacturing companies and the profound discussions with the people in these companies at all levels. Manufacturing Cost Policy Deployment (MCPD) Transformation: Uncovering Hidden Reserves of Profitability is organized in three sections. The first section presents the concept and the need for an MCPD system from a managerial perspective. In the second section, the transformation of manufacturing companies through the MCPD system is presented, more precisely the details of the initial steps of the implementation of the MCPD, the three phases and the seven steps of the MCPD, and the elements necessary for a constant and consistent application of the MCPD. In the last section, there are two examples of the MCPD implementation in two different types of industries, namely, manufacturing and assembly industry and process industry, and two case studies for the improvement of manufacturing costs for each (cost of equipment setup loss, using kaizenshiro; replacement of bottleneck equipment and associated costs of losses, using kaikaku; cost of quality losses with improving operators' skills to sustain quality, using kaizen; and cost problem solving with the consumption of lubricants for one of the equipment, using A3). When James Womack, Daniel Jones, and Daniel Roos wrote THE MACHINE THAT CHANGED THE WORLD in 1990, Japanese automakers, and Toyota in particular, were making a strong showing by applying the principles of lean production. However, the full power of lean principles was unproven, and they had not been applied outside of the auto industry. Today, the power of lean production has been conclusively proved by Toyota's unparalleled success, and the concepts have been widely applied in many industries. Based on MIT's pioneering global study of industrial competition, THE MACHINE THAT CHANGED THE WORLD offers a groundbreaking analysis of the entire lean business system, including product development, supplier management, sales, service, and production - an analysis even more relevant today as GM and Ford struggle to survive and a wide range of British and American companies embrace lean production. A new Foreword by the authors brings the story up to date and details how their predictions were right. As a result, this reissue of a classic is as insightful and instructive today as when it was first published. Strategic Decision Making in Modern Manufacturing introduces and explains the AMBIT (Advanced Manufacturing Business Implementation) approach, which has been developed to bridge the gap between strategic management considerations and the operational effects of technology investment decisions on the manufacturing organisation, so that the likely impact of new manufacturing technology and/or programme implementations can be evaluated, anticipated and accurately predicted. The AMBIT approach focuses specifically on the non-financial aspects of such investment decisions and offers an approach that allows a manager, or more frequently a management team, to understand the impacts of a new technology or a new programme on the manufacturing organisation in terms of manufacturing performance. Lean Production for Competitive Advantage: A Comprehensive Guide to Lean Methodologies and Management Practices, Second Edition introduces Lean philosophy and illustrates the effective application of Lean tools with real-world case studies. From fundamental concepts to integrated planning and control in pull production and the supply chain, the text provides a complete introduction to Lean production. Coverage includes small batch production, setup reduction, pull production, preventive maintenance, standard work, as well as synchronizing and scheduling Lean operations. Detailing the key principles and practices of Lean production, the text also: Illustrates effective implementation techniques with case studies from a range of industries. Includes questions and completed problems in each chapter. Explains how to effectively partner with suppliers and employees to achieve productivity goals Designed for students who have a basic foundation in production and operations management, the text provides a thorough understanding of the principles of Lean. It also offers practical know-how for implementing a culture of continuous improvement on the shop floor and in the office, creating a heightened sense of responsibility in all stakeholders, and enhancing productivity and efficiency to improve the bottom line. In this second edition, the author addresses management's role in Lean production. Early observers of Japanese methods focused on the shop floor to see amazing things unlike anything practiced elsewhere. And the thinking was, if the "methods" could be adopted by companies elsewhere, those companies would experience the success of the Japanese. What the early observers hadn't considered were dramatic differences in the way those companies were managed, both daily and strategically. The "management side" of Lean production is addressed in two new chapters, one devoted to daily management, the other to strategy deployment. Additionally, there is a new chapter that addresses breakthrough improvement and an approach to achieving it called Production Preparation Process. Every chapter has been revised and expanded to better tell the story of Lean production—its history, applications, practices, and methods.

Learning From World Class Manufacturers

Building Power, Strength, and Value

Uncovering Hidden Reserves of Profitability

The Lean Way to Quickly Reduce Changeover Downtime, Second Edition

New Perspectives on Applied Industrial Tools and Techniques

A Definitive Guide for Improving Equipment Operability and Maintainability Through Applied Visuals and Minor Modifications

Taking Control The book that bridges the gap between the shop floor, engineering, and management. Written in simple to understand language, Taking Control takes you step by step to turn average performance into world-class performance. Read stories of individuals and how they met and overcame challenges to be their best. Test your knowledge using the workbook and study guide.

This book tells 101 stories of company efforts to implement the many aspects of flow manufacturing -- including such topics as just-in-time production, total quality control, reorganization of factories into product-focused or customer-focused cells, plants-in-a-plant, material flows by the simplicity of visual kanban, supplier partnerships, quick setup of equipment, cross-training and job rotation of the work force, and many more. The 101 mini-case studies - dubbed "caselets" -- include 26 non-U.S. companies from 12 countries and cover a wide swath of industrial sectors, and include many well-known corporations such as Apple, Campbell Soup, Honeywell, and Boeing. From the 1980s to the present, the author has been taking the message of process improvement and customer-focused excellence far and wide. Most of these travels, usually in connection with delivering a seminar, include brief factory tours in which he compiled detailed notes and then organized them as brief reports -- his unvarnished analysis or take on what they do well and what needs improvement. In the main the reports were then sent back to the hosts of the plant tour. These factory tours and these follow-up reports form the basis of the large majority of this book's caselets. Many of the caselets bring to life process-improvement methodologies in detail. With lots of caselets to draw from, the readers will find vivid examples of similar companies and processes within their respective industries. For example, the caselets often include applications of advanced concepts in cost management, employee training, performance management, supply chains, and logistics as well as applications of plant layout, quick setup, material handling, quality assurance, scheduling, ergonomics, and flow analysis.

If there is any one element to the engineering of service systems that is unique, it is the extent to which the suitability of the system for human use, human service, and excellent human experience has been and must always be considered. An exploration of this emerging area of research and practice, Advances in the Human Side of Service Engineering covers a broad spectrum of ergonomics and human factors issues highlighting the design of contemporary manufacturing systems. Topics include: Adoption of health information technology (HIT) Aging society: the impact of age on traditional service system constructs Anthropology in service science Applying service design techniques to healthcare Co-creating value Cognitive systems modeling of service systems Context-related service: the human aspect of service systems Designing services for underserved populations Ethics dividend in services: how it may be cultivated, grown, and measured Governance of service systems Human aspects of change when applying Lean Six Sigma methods and tools Human side of service dominant logic in B2B settings Human-computer interaction and HF in software technologies Service network configuration impacts on customer experience Simulating employees and customers in service systems Systems design and the customer experience Usability and human side of electronic financial services The book also discusses issues that arise in shop floor and office environments in the quest for manufacturing agility, i.e. enhancement and integration of human skills with hardware performance for improved market competitiveness, management of change, product and process quality, and human-system reliability. It provides a foundation upon which researchers and practitioners can contribute to this quickly evolving area and make lasting contributions.

One study after the next shows that most employees are unhappy with their jobs and that less than a third actively engage with their work. That means that two out of every three are merely putting in their time, rather than maximizing productivity and attaining satisfaction. One could argue that such a malaise is the symptom of an unhealthy workforce. Corporate Sigma: Optimizing the Health of Your Company with Systems Thinking shows you how to develop extraordinary competence in your employees. Your organization will function as a system capable of learning, adapting, developing, and growing according to the winning vision you set for it. Like Six Sigma, Corporate Sigma is a metric that assesses the quality or the health and wellness of an entire organization. But assessment is only the first step. Providing you with distinctive tools that will transform your organization into a customer-driven, profitable, and continuous learning organization, this guide-- Defines the roles that employees and managers should play in a healthy organization and the principles and values that will guide them Shows you how to build an inherent sense of purpose, possibility, and commitment in every employee Offers you the tools needed to link an entire organization and assess its effectiveness or wellness Organized in self-contained sections, you can focus on what you believe needs direct attention, such as leadership, vision, or tools for lean improvement. However, once you start a healing journey, you are likely to discover the best cures are always holistic.

101 Mini-Case Studies that Reveal Lean's Successes and Failures

Manufacturing Engineering

Planning and Developing Synchronous Profitable Operations

World Class Manufacturing

Advances in the Human Side of Service Engineering

New Approaches in the Process Industries

The world today faces global competition. The supply chain is a vital part of the globalization process. Presenting a global view of the scope and complexity of supply chain management, this book reflects the rapid change that has taken place within the supply chain and its environment. This third edition has been fully updated with recent changes in concepts, technology, and practice. Integration and collaboration are keywords in future competition. Firms must be agile and lean at the same time. The book gives an insightful overview of the conceptual foundations of the global supply chain, as well as current examples of the best practice of managing supply chains in a global context.

Examines Japan's innovative, highly successful production methods

This book provides a comprehensive guide to Industry 4.0 applications, not only introducing implementation aspects but also proposing a conceptual framework with respect to the design principles. In addition, it discusses the effects of Industry 4.0, which are reflected in new business models and workforce transformation. The book then examines the key technological advances that form the pillars of Industry 4.0 and explores their potential technical and economic benefits using examples of real-world applications. The changing dynamics of global production, such as more complex and automated processes, high-level competitiveness and emerging technologies, have paved the way for a new generation of goods, products and services. Moreover, manufacturers are increasingly realizing the value of the data that their processes and products generate. Such trends are transforming manufacturing industry to the next generation, namely Industry 4.0, which is based on the integration of information and communication technologies and industrial technology. The book provides a conceptual framework and roadmap for decision-makers for this transformation. Competition from emerging and developing countries, challenges related to energy and water, the continuing increase in the global population and the obligation to be sustainable are all impacting developed countries such as the United States, France, etc. Manufacturing has been almost totally neglected by these developed countries and thus there is a strong need to review R&D and the development and industrialization processes. This is a prerequisite for maintaining and improving welfare and quality of life. The industrialization process can be defined as the process of converting research or laboratory experiments into a physical tool capable of producing a product of value for customers of specified markets. Such a process implies knowledge of BAT (best available techniques) in chemical engineering, plant design, production competitiveness, the proper utilization of tools (toolbox concept) such as value assessment, value engineering, eco-design, LCA (lifecycle analysis), process simulation, modeling, innovation and appropriate metrics usage. These are mandatory to ensure commercial success and covered by the authors of this book.

Managing the Global Supply Chain

Industry 4.0: Managing The Digital Transformation

Practical Lean Accounting

Manufacturing Cost Policy Deployment (MCPD) Profitability Scenarios

The Routledge Companion to Cost Management

Reduced Effort® Changeover

Other chapters deal with newly emerging concerns in management accounting, including network relations, integrated cost management systems, knowledge management pursuits, environmental management accounting, and accounting and digitisation. Each chapter encompasses discussions of basic premises complemented by insights from modern day practice, research and thought. This makes the book particularly suitable for students in intermediate, advanced and executive level courses in management accounting. It also provides an extensive corpus of discussions, which will inform those in practice. Readers interested in gaining direct insights into specialised management accounting areas will find this book to be an especially valuable reference source

"This newly-revised and greatly expanded volume aims to provide a readable, real-world roadmap for putting into place the indispensable strategy and tactics managers need to make lean work and move their organizations - whether manufacturing or service-based - toward a world-class production system. Drawing upon decades of experience in the front lines of lean production and organizational transformation, the author provides cases, anecdotes, examples, rationales, and concrete tools to help business leaders stop talking about lean production and actually make progress toward achieving it. It's the perfect resource for leaders at all levels who are interested in improving their competitiveness, building more successful operations, and moving toward world-class performance in customer satisfaction, profitability, and employee satisfaction."--BOOK JACKET.

The methods and concepts presented in the bestselling first edition revolutionized the approach to the management and control of Lean companies. Enhanced with extensive end-of-chapter exercises and a CD-ROM with Lean accounting tools, the second edition of this preeminent practitioner's guide is now suitable for classroom use. Practical Lean Account

Over the last two decades, cost management has been an area of dynamic change and development. This is evident in the extensive inventory of new, high-profile techniques that have emerged. With cost management now firmly established as a distinct sub-discipline within management accounting,

The Routledge Companion to Cost Management is a timely reference volume covering both practical developments and research in this area. Topics covered include: Cost control issues Cost analysis and decision making Cost management systems Environmental cost management With chapters from an international team of contributors, this prestigious companion will prove an indispensable addition to any library with aspirations of keeping up-to-date with the world of accounting.

Systematic and Systemic Improvement of Manufacturing Costs

Implementing World Class Manufacturing

Lean Transformation

The Machine That Changed the World

Lean Machines for World-Class Manufacturing and Maintenance

Taking Control: A Simple Approach to World-Class Manufacturing

This casebook, designed as a companion volume to Richard J. Schonberger's "World Class Manufacturing: The Lessons of Simplicity Applied," contains 26 cases that let students of WCM concepts solve actual JIT and TQC implementation problems in a wide variety of manufacturing and corporate settings. For readers with specific concerns, each case lists the topics covered (i.e., kanban, total preventive maintenance, partnership with customer) and each case includes questions on issues that companies commonly face in implementing WCM concepts. Dr. Schonberger also explains two JIT and TQC concepts not previously published -- micro-JIT analysis of shop-floor conditions

by ratios and the "naturalistic" approach to quality improvement.

Lean Machines for World-Class Manufacturing and Maintenance started out as a decade-long quest for world-class simplicity?common-sense, but not common practice, solutions to equipment communications. By applying visuals on the equipment, we are able to communicate proper operating and maintenance information at the point of use. Visuals applied to equipment remove much of the guesswork often associated with operations and maintenance. Visuals result in equipment that is significantly easier to operate, easier to maintain, and easier to inspect and troubleshoot. Visuals have also shown that equipment-specific training can be reduced by 60 to 80 percent. All of this results in eliminating human error and improving efficiency and effectiveness.This edition launches the next level of world-class simplicity for modern manufacturing and maintenance. We have collected and explained proven methods for simplifying the interactions between people and machines. Consistent with the principles of Lean Manufacturing, this book emphasizes techniques that eliminate many of the equipment-related wastes in the workplace. If we can apply and use the visuals and minor modifications in the context of Lean, we will be able to reduce operating, manufacturing, and maintenance costs. This book contains hundreds of hints and tips that will improve equipment effectiveness and simplify work.

This book shows how to consistently obtain annual and multiannual manufacturing target profit regardless of the evolution of sales volumes, increasing or decreasing, using the Manufacturing Cost Policy Deployment (MCPD) system. Managers and practitioners within the manufacturing companies will discover a practical approach within the MCPD system that will help them develop and support their long-term, medium-term, and short-term profitability and productivity strategy. The book presents both the basic concepts of MCPD and the key elements of transforming manufacturing companies through MCPD system, as well as supporting the consistent growth of external and internal profit by directing all systematic and systemic improvements based on meeting the annual and multiannual Manufacturing Cost Improvement (MCI) targets and means for each Product-Family Cost (PFC). This book is unique because it presents two types of systematic and systemic improvement projects for MCI that have been applied over the years in various multinational manufacturing companies operating in highly competitive markets, in order to address the consistent reduction of unit manufacturing costs by improving the Cost of Losses and Waste (CLW). Readers will discover the practical approach of MCI based on a structured approach to MCPD system beyond the traditional approach to manufacturing improvements based mainly on improved time and quality. Therefore, from the perspective of the MCPD system, the multiannual manufacturing target profits are met while the annual and multiannual manufacturing target costs are a predetermined stake and not a result of the improvements already made. The never-ending global search for a country with a low labour wage is almost bottoming out. The so-called labor-oriented apparel manufacturing industry is poised to change. Due to fierce global pressure on reducing price and lead time, the textiles and apparel producers will have to banish all waste from their supply chain. Lean manufacturing which removes waste and smoothen the process flow is gaining popularity among textiles and apparel producers and will be a key element for the survival of the industry in the years ahead. An overview of various lean tools with a balanced mix of conceptual knowledge and practical applications in the context of apparel manufacturing Valuable industry information which managers and engineers can follow themselves without the need to hire outside consultants Case studies and examples from apparel manufacturing demonstrating how lean tools are being used successfully by leading organizations; an academician's delight Possible use cases of several lean tools having potential use in the apparel manufacturing scenario

Handbook of Research on Design and Management of Lean Production Systems

Proceedings of the 4th AHFE Conference 21-25 July 2012

Lean and Cleaner Production

Contemporary Issues in Management Accounting

Lean Tools in Apparel Manufacturing

A Route to World Class Performance

Compared to its widespread implementation across almost all areas of production, Lean improvement efforts lag within the process industries. While many innovators have successfully applied Lean principles to these industries during the past three decades, most of those pioneering efforts were never recorded to guide the improvement efforts of others. Drawing on more than 40 years of application experience at one of the world ' s largest chemical and materials manufacturers, coupled with 10 years in private practice, Peter King corrects this void by providing the first comprehensive resource written explicitly for change agents within the process industries. Focusing on areas where the improvement needs of the process industry differ from parts assembly manufacturing, Lean for the Process Industries: Dealing with Complexity, Second Edition: Covers each of the eight wastes commonly described in Lean literature, looking at how they manifest themselves in process operations. Explains how to adapt value stream mapping for process operations. Shows how to identify the root causes of bottlenecks, and how to manage them to optimize flow until they can be eliminated. Provides practical techniques to overcome the barriers which have prevented the application of Cellular Manufacturing to process operations. Discusses the role of business leadership in a Lean strategy, describing both enabling and counter-productive management behaviors Since the publication of the first edition of this book, Peter King has been busy consulting with food, beverage, gasoline additive, and nutraceutical companies -- these new experiences have broadened his perspectives on certain Lean processes and have given him a richer set of examples to discuss in this new edition. While Value Stream Mapping is a very powerful tool to understand flow, bottlenecks, and waste in an operation, the traditional format as presented in many other books does not describe all of the data required to fully understand process flow and its detractors. This new edition highlights the necessary additions with examples of why they are useful. Product wheel scheduling achieves production leveling in a far more comprehensive and effective way than traditional heijunka methods. This edition has a more thorough description of the wheel concept and design steps, and more examples from actual applications.

Profitable production planning is and will remain an eternal challenge to ensuring the prosperity and dignity of companies in a global market. Even though there are different approaches to achieving the target profitability through productivity in the production planning stage, these approaches do not guarantee consistent planning, creation, and sustenance of synchronous profitable operations for multiannual and annual target profit. In feedback to this predicament, Alin Postecuc develops a new system called speed-based target profit (SBTP). SBTP is the profitable production management and manufacturing improvement system that approaches production planning to achieve unit speed of target profit for target products through manufacturing cost improvement and bottleneck profitability control for maximum takt time. Managers and practitioners within manufacturing companies will discover a practical approach for cost down and cash up by applying a powerful operational profitable production planning formula to meet profitability expectations through productivity based on strong leadership with the help of a specific system for feedforward, concurrent, and feedback control. Therefore, the SBTP system in this book presents a holistic approach to profitability for target products and the development of its own mechanism since the acceptance of each order from customers to achieve continuous synchronization of all manufacturing processes to market requirements, profitability management, and profitable production planning. The uniqueness of the book is reinforced by a detailed presentation of the successful application of the SBTP system in two case studies, as a way of life and a unit speed of target profit improvement ethos at all hierarchical levels, in two multinational manufacturing companies operating in highly competitive markets in order to address the synchronous profitable operations for both the sales increase scenario and the sales decrease scenario. By adopting the SBTP system, your company will be able to consistently achieve unit speed of target profit in the bottleneck process for fulfilling annual and multiannual target profit as a unique and effective way through a new profitable production planning paradigm that operates according to its own production system.

Books in the Quality and Business Excellence series can help readers improve customer value and satisfaction by integrating the voice of the customer into design, manufacturing, supply chain, and field processes. Lean Transformation: Cultural Enablers and Enterprise Alignment is about the Lean system. It begins by describing the reasons why so many Lean implementations fail and explaining why managers need to focus their valuable time on early adopters rather than on trying to convert resistors. This book describes the guiding principles of the Shingo process for continuous improvement layout and evaluation. It examines the principles, systems, and tools of continuous improvement and demonstrates how to deploy these proven methods in plants and distribution centers. The book covers time-tested continuous improvement process tools and practices, including the visual workplace, mistake proofing, PDCA, 5S, Heijunka, standard work, Kaizen, and value stream mapping. It also examines Lean performance measures and introduces a comprehensive Lean tool assessment system. Presenting seven proven techniques for altering and guiding a Lean culture, the book identifies a formal process for overcoming common roadblocks. It also illustrates the proliferation of the Lean initiative across an organization's various sites. This book describes how proper assessment of Lean system tools can help your organization remain focused on system standardization and boost your organization ' s sustainability efforts. It includes job descriptions of various roles in the improvement process, including those for Lean supervisor and Lean team leader, as well as a glossary that defines key terms.

Since the invention of double-entry bookkeeping, managers have judged a company's worth by sales and profits. Now, Richard J. Schonberger, the architect of the worldwide Just-In-Time revolution, reaches beyond "financials" to redefine excellence -- and reveals, with new benchmark data, how pioneers become dynasties. Schonberger's pathbreaking new research reveals that, from 1950 to 1995, while "financials" dipped and soared repeatedly, industrial decline and ascendancy correlated perfectly with inventory turnover -- one of two key nonfinancial indicators and a bedrock measure, along with customer satisfaction, of a company's power, strength, and value. In this immensely readable book, he captures these new metrics -- the true predictions of future success -- in 16 customer-focused principles created from self-scored reports supplied by over 100 pioneering manufacturers in nine countries. Armed with new world-class benchmark data, Schonberger redefines excellence in terms of competence, capability, and customer-focused, employee-driven, data-based performance. For front-tine associates to senior executives, Schonberger has written manufacturing's action agenda for the next decade. This book will be indispensable reading for manufacturing and general managers in all industries, as well as for pension fund managers, institutional investors, stock analysts, and stockbrokers.

Speed-Based Target Profit

Dealing with Complexity, Second Edition

DeGarmo's Materials and Processes in Manufacturing

Implementing JIT and TQC

Lean for the Process Industries

The Complete Guide - Including Policy Deployment and Developing a Lean Culture. 3rd Edition

In his best-selling book Japanese Manufacturing Techniques, Richard J. Schonberger revolutionized American manufacturing theory and, more important, practice. In that breakthrough book, he revealed that Japanese manufacturing excellence was not culturally bound. Offering the first demystified explanation of the simple techniques that fueled Japan's industrial success, he demonstrated how the same methods could be put to work as effectively in U.S. plants.

Through TPM, more companies accept the concept of Zero Breakdowns as achievable. Based on first hand experience, this is a practical guide to delivering TPM benefits, and world class performance.

'Operations Management: policy, practices, performance improvement' is the latest state-of-the-art approach to operations management. It provides new cutting edge input into operations management theory and practice that cannot be found in any other text. Discussing both strategic and tactical inputs it combines and balances service and manufacturing operations. * Cutting edge techniques accompanied by brand new case studies * Challenges standard approaches * Comprehensive coverage of strategic supply management * Critical sample questions to aid discussion * Reading lists and articles to support learning * Additional lecturer support material This outstanding author team is from the Operations Management Group at the University of Bath. Their expertise and knowledge is apparent in the text, and they bring to it their original research and experience in the field of operations management.

Now in its eleventh edition, DeGarmo's Materials and Processes in Manufacturing has been a market-leading text on manufacturing and manufacturing processes courses for more than fifty years. Authors J T. Black and Ron Kohser have continued this book's long and distinguished tradition of exceedingly clear presentation and highly practical approach to materials and processes, presenting mathematical models and analytical equations only when they enhance the basic understanding of the material. Completely revised and updated to reflect all current practices, standards, and materials, the eleventh edition has new coverage of additive manufacturing, lean engineering, and processes related to ceramics, polymers, and plastics.

Advances in Human Factors and Ergonomics 2012- 14 Volume Set

Making Apparel Manufacturing Lean

Flow Manufacturing -- What Went Right, What Went Wrong

Applications in Prefabrication to Reduce Carbon Emissions

Optimizing the Health of Your Company with Systems Thinking

Cultural Enablers and Enterprise Alignment

The principles of lean manufacturing – increasing efficiency, reducing waste, lowering costs and improving control – may be applied to any industry. However, the food industry is unique, and creates unique demands. The political, social and economic importance of food is unrivalled by any other form of produce, as is the scrutiny to which the manufacture of food is subjected. For the food industry, lean manufacturing is not simply a cost-saving strategy, but is directly linked to issues of sustainability, the environment, ethics and public accountability. Handbook of Lean Manufacturing in the Food Industry is a major new source of information and ideas for those working in food manufacturing. Offering a fresh and modern perspective on best practice, it points the way to fewer breakdowns, reduced quality faults, improved teamwork and increased profits. With a focus on operations management and new process development, the book is accessible and easy to read, and is complemented by a wealth of practical examples drawn from industry. The author's conversational style and questioning approach will be invaluable to food manufacturers who are seeking solutions to fundamental issues. The book is directed at those who are working in food manufacturing or the wider food industry, particularly factory operations managers and training teams who are looking for resources to help with lean manufacturing implementations. Others in the supply chain, from producers to retailers, will also find it invaluable. The book is a clear and timely introduction for students and lecturers in food science and technology who want to access the reality of lean manufacturing as well as the theory.

This book explains how in moving towards Cleaner Production, the Lean Production Philosophy can be applied to reduce carbon emissions in prefabrication - one major source of the Greenhouse Gas (GHG) emissions which contribute to global climate change. This book examines theories and principles in the Lean Production Philosophy to develop situation-based carbon reduction strategies for precast concrete manufacturers and contractors in terms of Site layout, Supply Chain, Production, Stocks and Installation Management. It presents the empirical findings of surveys and case studies with managers and professionals working for precasters and contractors in Singapore, findings which provide good practical guidance for precast concrete manufacturers and contractors to achieve low carbon emissions and to perform better in many sustainability-based rating systems, such as the Singapore Green Labelling Scheme and the Building and Construction Authority (BCA) Green Mark Scheme.

I have been a Lean Management Consultant for the past decade and have been asked interesting questions by my prospects/clients. I'd have to say, the most made statement has been "Lean only works in the Automotive Industry and is not applicable to our industry...". This misconception is what triggered me to write a book on Lean for the various industries that I consult in, i.e. one book for every industry. This book on the application of LEAN in Apparel Manufacturing, is my first foray into authoring a book. This book is an attempt to educate its readers on how to implement the practical aspects of LEAN, on the shopfloor. It begins with the dissemination of the interrelated elements of the Toyota Production System, the objective of TPS and its importance in Production Management. The concepts of LEAN and waste elimination are then explained with an overview of the Seven Types of Manufacturing Wastes. Value Stream Mapping, a frequently used tool to map the waste, has been elaborated in four chapters. These chapters explain concepts like Product Family Matrix, KPI definitions, guiding principles to design a Lean process and the construction of the 'AS IS' and the 'TO BE' Value Stream Maps. Individual chapters are devoted to the elements of TPS like 5S, Visual Management, Skill Management, Process Standardization and Single Minute Exchange of Dies. These chapters explain the concepts and their application in detail, equipping you with the required tools and techniques. The chapter on Balanced Score Card and Hoshin Kanri explains the mechanism of aligning the vision of the factory to the individual objectives. The chapters on A3 Problem Solving and Quality Management initiate the readers to a scientific methodology of problem solving. We follow up with chapters on Kanban Systems and WIP Management in order to get a sense of Pull systems. The chapter on Total Productive Maintenance lays emphasis on measurement of OEE% and the problem-solving cascade. We end this book with chapters on Shopfloor Control, sustaining a Lean culture and providing a Lean Implementation Model for Apparel Manufacturing. I would like to extend my gratitude to Deepak Mohindra, Chairman, Apparel Resources for his continued support and guidance. My wife Manali, my daughters Aishwarya & Arya and my mother Padma, have also been my constant motivators. I would also like to thank my past and current clients for implementing my advice. This book would be incomplete without mentioning Ashish Grover, who was a great support during preliminary Lean pilots on the garmenting shopfloor. This book is my tribute to him. I hope that this book creates more value for you and your organization. Wish you all the best in your LEAN journey!

Manufacturing managers are still focused on the short-term tactical issues related to their business. Strategic issues tend to receive less attention. However, manufacturing can play an important strategic role. This book helps managers consider the strategic roles their operations can play and to provide guidance as to what actions can be taken.

Lean Production for Competitive Advantage

Machine that Changed the World

Lean Production

Strategic Decision Making in Modern Manufacturing

Manufacturing Cost Policy Deployment (MCPD) Transformation

World Class Manufacturing Casebook

Improving Changeover Performance is essential reading for managers, engineers and improvement practitioners working in manufacturing industries. It will also prove invaluable to original equipment manufacturers and postgraduates and academic researchers alike. Increasing importance is being placed on responsive, flexible manufacture in multi-product industrial environments. The ability to changeover production facilities both quickly and to a high standard is a key component of just-in-time and lean manufacturing paradigms, which are increasingly being adopted as businesses strive to compete in today's volatile and congested markets. Currently industry frequently adopts the SMED (Single Minute Exchange of Die) system, a well-established shop floor method to improve changeovers. This book takes a major step beyond the SMED system, by describing in much greater detail than hitherto the potential role of engineering design, of both substantive and non-substantive nature, to enhance changeovers. It also clearly sets out what better changeover performance can contribute to business competitiveness, and describes the many pitfalls that an improvement initiative can face. Provides overall methodology for changeover improvementIncorporates design into SMED system Recommended by the IMechE Journal of Engineering Manufacture With contributions from an international group of authors with diverse backgrounds, this set comprises all fourteen volumes of the proceedings of the 4th AHFE Conference 21-25 July 2012. The set presents the latest research on current issues in Human Factors and Ergonomics. It draws from an international panel that examines cross-cultural differences, design issues, usability, road and rail transportation, aviation, modeling and simulation, and healthcare.

ReducedEffort® Changeover: The Lean Way to Quickly Reduce Changeover Downtime provides a step-by-step guide for conducting a Kaizen event that empowers the people who do the work to improve how that work is done. Packed with tips, tools, and examples, this practical guide begins with a clear description of the Lean principles underlying the ReducedEffort Changeover system. In addition, it explains how and why reducing the effort always reduces the time of converting a machine, line, or process from one product to another. In this book, you ' ll find everything you need to quickly and dramatically reduce the effort and time of any process using the ReducedEffort method. This is not another book about how to do SMED. Like SMED, ReducedEffort Changeover (REC) does reduce changeover time, but REC is not SMED. SMED, Single Minute (or digit) Exchange of Dies, developed by Dr. Shigeo Shingo, has been the process used for many years by countless manufacturing plants to reduce changeover time. The SMED process was used in Toyota to reduce the changeover of a 1,000-ton stamping press from four hours to three minutes. As a Lean-based process, the REC system focuses on reducing the labor, not the time, involved in changing over a machine to work on a different product. With REC, there are no Standard Operation

Combination Sheets to fill out and no Problem Identification Sheets to complete, and it does not require the arduous chore of timing every task, as SMED does. Very little capital investment is required with REC. Unlike SMED, it does not require management-approved funding to achieve substantial results. Because REC is not capital-driven, management does not need to drive the process. The operators will drive the process because it reduces their labor. One of the biggest advantages of REC over SMED is that operators will readily accept the process, and more important, they will want to sustain it. The reason for this is quite simple and will become evident when the REC process is defined. REC takes SMED to a new level that is easier and faster both to implement and to deliver sustainable results.

This book disseminates the current trends among innovative and high-quality research regarding the implementation of conceptual frameworks, strategies, techniques, methodologies, informatics platforms and models for developing advanced industrial tools and techniques and their application in different fields. It presents a collection of theoretical, real-world and original research works in the field of applied industrial tools and techniques. The text goes beyond the state-of-the-art in the field of industrial and software engineering, listing successful applications and use cases of studies of new approaches, applications, methods, techniques for developing advanced industrial tools, methodologies and techniques and their application in different fields. The topics covered in this book are of interest to academics, researchers, students, stakeholders and consultants.

World Class Manufacturing: The Next Decade

TPM -

Corporate Sigma

Handbook of Lean Manufacturing in the Food Industry

Operations Management: Policy, Practice and Performance Improvement

Improving Changeover Performance

"This book explores the recent advancements in the areas of lean production, management, and the system and layout design for manufacturing environments, capturing the building blocks of lean transformation on a shop floor level"--

A Proven System for Measuring and Managing the Lean Enterprise, Second Edition

A Comprehensive Guide to Lean Methodologies and Management Practices, Second Edition

Implementing a World-class System

The Manufacturing Plant of the Future