PREFACE

This is a textbook about managing for enterprise-wide quality to achieve customer satisfaction, loyalty, and business goals. Not just meeting product specifications, not just about statistical process control, but a textbook about attaining quality leadership for any enterprise. Attaining quality leadership is our expression that describes an enterprise that has reaped increased financial, cultural, and stakeholder results by implementing the tools and techniques of managing for quality.

This book is not limited to product and service quality or "little q," as Dr. Juran referred to it. In this book, quality means "Big Q." Big Q includes product and service quality *and* the quality of processes, systems, organization, and leadership. In other words, this book is about enterprise quality.

The fifth edition of this highly regarded classic book combines the pioneering concepts of Dr. Joseph. M. Juran and the teachings of the late Dr. Frank M. Gryna with the insights and experience of today's leading trainers and consultants at the Juran Institute—Dr. Richard Chua, Executive Vice President, and Joseph A. DeFeo, CEO and Executive Coach.

New features of this edition include

- A Road Map for Enterprise Quality to guide organizations in achieving and sustaining breakthrough results to attain enterprise quality leadership.
- Updated references and supplementary readings with descriptions of the citations, based on on-line searches of the latest literature—books, conferences, and published journals.
- New and expanded topics, including Six Sigma Improvement, Design for Six Sigma, Lean, Value Stream Management, Mass Customization, Quality Function Deployment, and Strategic Deployment.
- Actual Six Sigma and Lean project examples and presentations are showcased.
- A case study showcasing the application of Six Sigma and Lean to errorproof process documentation in an FDA-regulated biotech environment.
- A more extensive treatment of Hypothesis Testing, including a hypothesis testing road map to guide practitioners in the choice of statistical tests. This can add value to Six Sigma Experts, Green Belts, and Black Belts.
- Use of MINITAB software to analyze data and solve problems. Real-world examples using MINTAB are featured.
- A web site for instructors and students to access data sets, homework assignments, and web links for further study and reference.

- A full Instructor's Manual is available, containing solutions to all problems, additional case studies and their solutions, and enlargements of key figures from the book are on the web site.
- A modular organization of topics into four parts to enable instructors (and the reader) to customize topic coverage easily for different classes, as follows: Foundation, Managerial Concepts, Functional Applications, and Statistical Techniques.

PART I: FOUNDATION—covers the basic concepts of quality, enterprise-wide assessment of quality, and the three universal processes for attaining quality leadership—improvement, planning, and control.

PART II: MANAGERIAL CONCEPTS—covers managerial concepts with chapters on process management, organization for quality including the role of the quality function, strategic quality management and deployment, and developing a quality culture.

PART III: FUNCTIONAL APPLICATIONS—covers functional applications needed to attain enterprise quality leadership with chapters on understanding customer needs, designing for quality, supply chain management, operations in the manufacturing sector, operations in the service sector, inspection, test and measurement, and quality assurance audits.

PART IV: STATISTICAL TECHNIQUES—covers statistical analysis tools with chapters on basic concepts of statistics and probability, statistical tools for analyzing data and hypothesis testing, statistical tools for designing for quality, and statistical process control.

This book is very useful for

- Senior-level undergraduate and graduate classes in business and engineering schools—both as an introductory text to the subject of managing for quality and as an advanced text in quality management for those specializing in operations management or industrial engineering.
- Quality practitioners including those preparing for the ASQ certification examinations: Certified Quality Engineer, Quality Manager, Software Quality Engineer, and Reliability Engineer.
- Executives and practitioners of ongoing improvement initiatives such as Performance Excellence, Operational Excellence, Six Sigma, and Lean.
- Black Belt and Green Belt workshops—this book serves well as the primary text for Black Belts and Green Belts as they undergo training and pursue certification. Master Black Belts will also find this book useful in providing a solid grounding in the concepts, tools, and techniques for attaining enterprise quality leadership.

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