

**Competitive Advantage: Linked Management Systems  
Financial, Quality, Environmental and IT Management Working Together  
To Improve the Bottom Line**

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**Summary**

The book was written to illustrate how organizations can link their quality, environmental, financial and IT management systems and to describe the benefits of these systems working together.

Unfortunately the multiple business management systems of today usually do not talk to one another. They behave like independent silos<sup>1</sup>, which results in less-than-optimal operations, excessive costs and unhappy customers and investors.

Quality and environmental managers need to understand the language of finance and the effect of operations on the bottom line, while financial managers need to know how quality and environmental managers can help improve results. The message is that each of these managers needs to understand what each one brings to the table. The long-term advantages will be cost savings, continual improvement of processes and products, and a greater understanding of each other's work and responsibilities.

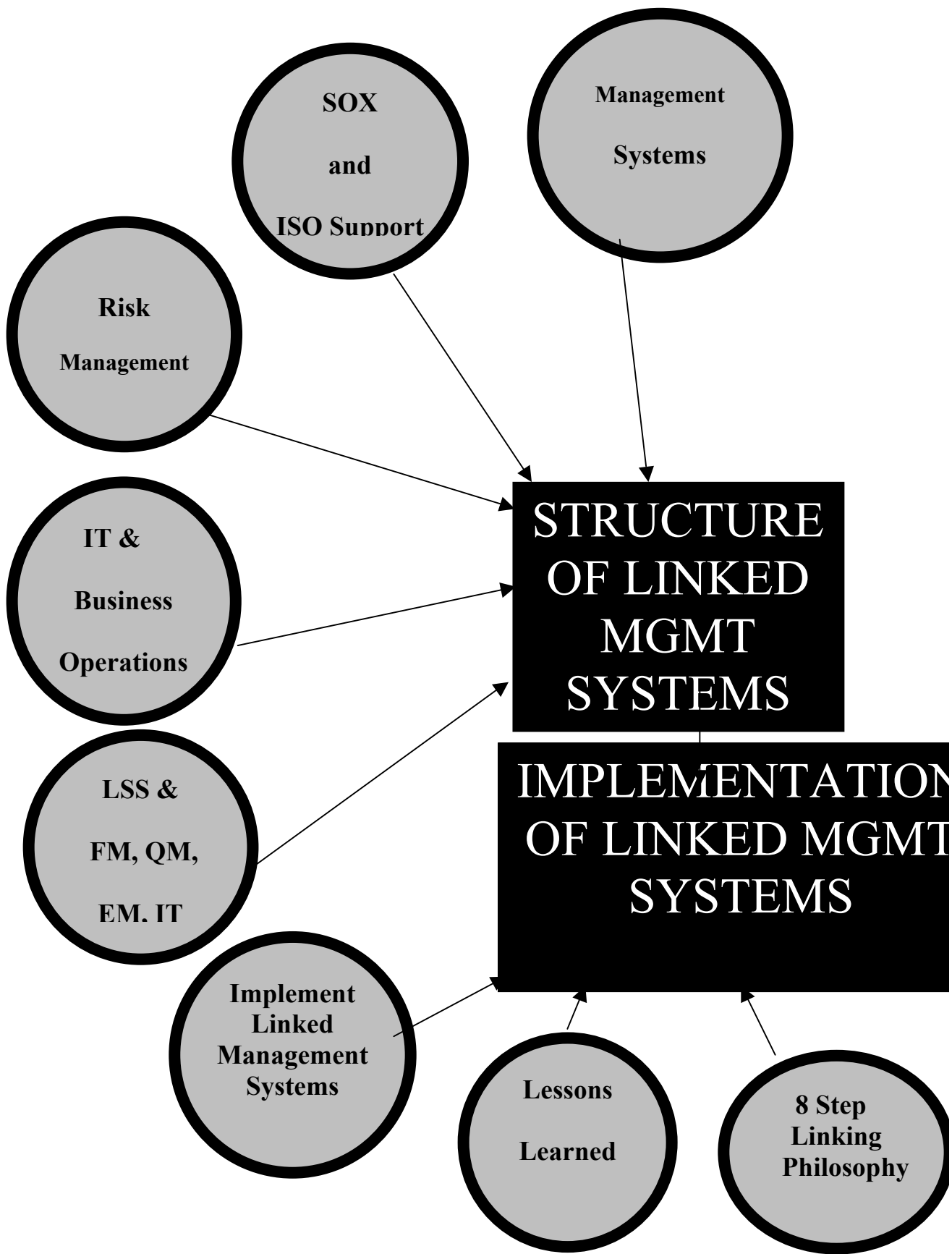
The book is divided into two parts. Figure P-1 provides a visual description of the structure of the book.

The first part, Chapters 1 through 5, provide the background needed to understand the linking philosophy.

The second part, Chapters 6 through 8 provide information on implementing linked management systems

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<sup>1</sup>See my paper in Quality Progress: Sandford Liebesman. "Down with Silos," Quality Progress, September 2008, 64-67.



Chapter 1, “Linking Management Systems,” introduces quality and environmental managers to the language of finance and describes the effect of operations on the bottom line. Also it indicates how quality and environmental managers can work with financial managers to improve the organization’s results. This chapter introduces the roles of ISO 9001 and 14001, lean-six sigma and information technology in a linked management environment.

Chapter 2, “QMS/EMS Support of the Sarbanes-Oxley Act,” describes the Sarbanes-Oxley Act and shows how specific clauses of ISO 9001 and 14001 support SOX Section 404 compliance through the use of the COSO guidance. Also, introduced is the idea that the six required documented procedures of ISO 9001 can be used by the other management systems.

Chapter 3, “Risk Management: Essential in Today’s Global Economy,” describes a common risk management methodology. This includes the organization’s objectives, definition of risk categories, identification of risks to meeting the objectives and methods for managing the risks. It introduces key functions of a risk management program: risk appetite, risk tolerance, the use of controls and risk management tools.

Chapter 4, “The Importance of Information Technology in Effective Business Operations,” discusses the role of information technology in an organization. Also described is IT support of SOX, management of controls and information security. ISO 27001 and CobIT are two tools used to assure effective information security capabilities of IT systems.

Chapter 5, “Linking Lean-Six-Sigma to Management Systems and Information Technology,” describes the use of a lean-six sigma program to reduce the cost of finance, quality and environmental management and information technology. Discussed are some of the lean-six sigma tools and examples of their use in management systems.

After finishing Chapter 5, the reader should have a good understanding of the individual management systems, supporting tools and the philosophical background of linked management systems. The remaining three chapters provide information on implementing linked management systems.

Chapter 6, “Implementing Linked Management Systems,” describes the structure of a linked management system, provides an implementation process and indicates what management must do to assure the effectiveness of the new system. There are discussions of key controls and their importance in auditing of the system. Also described are audits of the management systems separately and integrated audits of the systems together. Chapter 6, contains a four phase methodology for implementing linked management systems consisting of planning, development, internal assessment and external auditing. The description includes deliverables for each phase.

Chapter 7, “Lessons Learned from Linked Management Systems,” contains case studies of organizations that linked their management systems in order to comply with SOX 404. Two sets of questionnaires were filled out by these organizations. The first describes how their quality organizations supported the financial auditors in their systems. The second provided more details on how the linked management systems were implemented. This chapter includes a linked management system story which illustrates how an organization can improve communication between quality and financial auditors and identified key results affecting the bottom line. Finally, there are examples of case studies from a new ISO book describing “guidance on how to integrate requirements of multiple ISO and non-ISO management System Standards.”<sup>2</sup>

Chapter 8, “A Foundation for Linking Management Systems,” defines a series of eight actions for linking management systems. The actions are: (1) connect the management systems by using common processes; (2) implement the ISO 9001 process approach in all management systems; (3) where applicable, link operations to the SOX compliance process; (4) implement continual improvement activities as defined in ISO 9001; (5) ensure that the risk assessment process is complete and operating effectively; (6) conduct linked audits; (7) clarify the role of information technology; and (8) improve corporate governance.

There are three appendices and a bibliography after Chapter 8. The appendices are:

- Appendix A: Sarbanes-Oxley Act Index
- Appendix B: Case Studies
- Appendix C: Definitions and Acronyms

The bibliography contains lists of books, articles and web sites.

The intent of this book is to describe a methodology for breaking down the silos that exist in most organizations and linking management systems so they work effectively together. The benefits will accrue to the organization’s bottom line and improve its overall operation.

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<sup>2</sup> “The Integrated Use of Management Systems,” The International Organization for Standardization (ISO), Geneva, Switzerland, 2008.