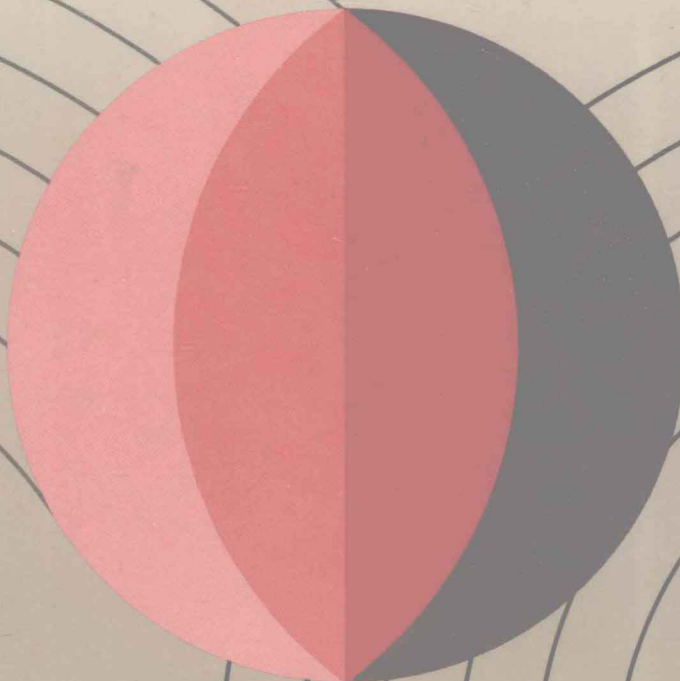


CHARLES S. PARKER

*Management
Information
Systems*

STRATEGY AND
ACTION



Management Information Systems

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and Graduate School of Management
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This book is dedicated to my very dear friends, Ralph and Daisy Paich.

MANAGEMENT INFORMATION SYSTEMS: STRATEGY AND ACTION

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Preface

Management information systems (MIS), or information systems, is the field that occupies the space where management and technology overlap. Advances in computer and communications technology over the past several years, as well as increased business pressures, have brought MIS out of the shadows of corporate life and into the limelight. Once considered only of passing interest to higher management, information systems are now widely recognized as major organizational resources that can spell the difference between survival and extinction in many industries. Access to the right types of information at the right time means acquiring and keeping customer business, creating an edge over the competition by doing things better or faster, and developing a strategic posture for the future by being able to spot important trends or events. In most large firms, information is both a major economic resource and a product.

The growing role of information as a key organizational resource has made the study of information systems vital to anyone contemplating a career in business. Virtually all managers in organizations today—and most nonmanagers—need to manipulate information as part of their jobs. By studying the processes that cause information to be needed, gathered, manipulated, stored, and used, these people can develop strategies and tools to make themselves or their organizations more effective or more efficient.

Management Information Systems: Strategy and Action is written to convey what every general manager should know about the MIS field. It comprehensively covers the use of information systems within organizations today—addressing such traditional uses as processing business transactions, streamlining office functions, and supplying timely information to managers who need it, as well as such newer uses as providing easy-to-use information-generating capabilities to workers at all levels and creating competitive advantage for the organization. The subtitle of the book, *Strategy and Action*, captures two major themes followed throughout the text:

- *Strategy*. Most organizations are guided by some type of strategic plan—a master blueprint charting the direction the enterprise should take in the future. Since information systems now play a significant role in the success of the large, modern organization, strategic planning for information systems—charting a direction for the MIS effort—has evolved into an impor-

tant item on many agendas. By considering information systems through a strategic focus, the reader is able to study and evaluate the MIS field from a top-down perspective, learning from the outset how to separate the critical MIS problems and opportunities from the not-so-critical ones. Also, creating competitive advantage for the firm—using information systems in strategic ways—has become a major focal point for information systems development. Both of these strategy themes—strategic planning for information systems and using information systems to create competitive advantage—are introduced early in the text and developed throughout.

- *Action*. The MIS field is not an exact science like mathematics or physics. Information systems depend largely on actions taken by people, and the actions people take are often unpredictable. Thus, what an information system is supposed to do in theory and what it actually does when put into practice may be two different things. Perhaps more than any other textbook now available, *Management Information Systems: Strategy and Action* looks closely at the role of people in information systems—both through major sections dealing with how human actions impact information systems development and performance, and through scores of quotes from practitioners who reveal how MIS activities are actually carried out in their organizations.

In addition to these major themes, the book addresses a number of other traditional and leading-edge areas—for instance, types of information systems, technology fundamentals, building information systems (both in traditional and nontraditional ways), the management of information systems, the revolutionary role of the microcomputer in information systems, expert systems, and improvements in user interfaces that have widened the scope of who can benefit from information systems. The text also contains a number of key topics that are difficult to find in other texts in this field—for example, managing multinational information systems, assessing the element of risk in developing MIS project portfolios, pricing information systems products, leveraging investments in technology by marketing MIS products outside the organization, justifying projects with a large number of intangible benefits, dealing with situational contingencies when solving implementation-related problems, assessing the growing role of packaged software, and developing MIS careers under the new market realities of the 1990s.

Besides its fresh and current outlook to the study of information systems, two other key features of *Management Information Systems: Strategy and Action* are its readability and its wide applicability. A major goal in writing this text was to make MIS understandable using simple, everyday language—and to do so in an interesting and engaging way. Written to balance breadth with appropriate technical detail, the text is aimed primarily at business students in their junior or senior year of college and at students in MBA programs. It is suitable for business students majoring in information systems and for those majoring in other areas. Because of its balanced focus, the book is also useful for students majoring in nonbusiness fields—say, liberal arts or engi-

neering—who want to learn about the theory and practice of information systems. A major goal in preparing the text has been to strike a balance between the managerial and technical components of MIS, presenting the field in a manner that is understandable, interesting, and—most importantly—useful to as wide an audience as possible.

TEXTBOOK ORGANIZATION

To provide the maximum amount of instructional flexibility, the text has been logically organized into six parts:

- Part One, *Introduction*, covers the major roles played by information systems. Also included in Part One are examples illustrating each of these roles and some general MIS fundamentals.
- Part Two, *People, Organizations, Systems, and Management*, covers the role of people in information systems, types of organizations and jobs, types of systems environments, and several critical management concepts.
- Part Three, *Computer Concepts*, presents a number of important principles relating to hardware and software, database management, microcomputers, and telecommunications.
- Part Four, *MIS in Practice*, addresses transaction processing systems, information reporting systems, decision support systems, executive information systems, expert systems, office systems, and information systems applications in the functional areas of business.
- Part Five, *Building MISs*, examines traditional and nontraditional systems-building practices, as well as the major activities taking place during the stages of the systems development life cycle.
- Part Six, *MIS Management*, covers a wide selection of management-related topics, including strategic planning for information systems, pricing MIS outputs, security, budgeting, and multinational MIS development.

Collectively, the six parts of the text are subdivided into twenty chapters, and, in turn, each of the chapters is subdivided into a logical hierarchy of sections and subsections. Each chapter opens with learning objectives, followed by a list of key terms and a brief narrative that introduces the chapter to the reader. Within each chapter, both the key terms and other important terms are emphasized with italics. Also, each chapter contains one or more boxed features highlighting some important aspect of MIS—for instance, how MIS is implemented in a specific organization or industry. The 50 boxes cover a wide spectrum of organizational environments, including both large and small corporations, government agencies, hospitals, and museums. Each chapter concludes with a set of review questions, a set of discussion questions, a list of important references, and a chapter case study highlighting one or more important concepts in the chapter. The cases feature real-world organizations, important industry segments, and major problem and opportunity areas within MIS.

At the end of the book is a glossary of terms, covering most of the chapter key terms, and an extensive index.

INSTRUCTIONAL PACKAGE

Management Information Systems: Strategy and Action is accompanied by a complete set of teaching and learning support materials. Included among these are the following:

- *Casebook. MIS: Cases in Action*, by Jamal Munshi of the University of Arkansas, contains nine cases adapted from actual situations in real companies. Organized around problems and opportunities that develop thinking and decision-making skills, the casebook includes an overview of the case method, a sample solved case, cases for solution, technical notes, and a glossary, along with an instructor's manual and instructional template disk in IBM-PC-compatible, IBM PS/2, and Macintosh formats.
- *Study Guide*. The Study Guide provides student support and reinforcement for the textbook and for course lectures. It contains chapter outlines, a review of key concepts and terms, sample questions to test mastery of the text, and a case study for solution and classroom discussion.
- *Instructor's Manual*. The author-written Instructor's Manual contains a large number of items to facilitate lecture organization, including, for each chapter, a lecture outline, teaching tips and strategies, and answers to all of the review questions, discussion questions, and in-text case-study questions.
- *Test Bank*. The author-developed Test Bank, provided in both hardcopy and computerized formats, contains approximately 3000 questions of four

ment and support through the years, there is a very real possibility that *Management Information Systems: Strategy and Action* would never have been written.

I would also like to thank the following reviewers for their many helpful suggestions during the development of this text:

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