
Management of Information Technology

by
Carroll W. Frenzel

REVIEWED BY
CHETAN S. SANKAR
MICHAEL E. WHITMAN
AUBURN UNIVERSITY

Dr. Frenzel has used his extensive experience to create an important and interesting book for a course on Information Resources Management. This book has been used in our MIS curriculum both at the undergraduate and graduate level. Both the students and faculty members liked the book and the comments were overall very favorable. The book presents a wide variety of well-integrated subjects relevant to practitioner and academician alike. The book is well-written and relevant for business students in general and management information systems (MIS) students in specific.

Due to the non-technical nature of this book, it could be easily adopted for a general management course on information technology in the Business school. The author has combined operational and strategic issues cleverly and presents the importance of using information technology in the ever-changing information filled world. It also integrates the subjects of telecommunications and information systems management into one entity and thereby bridges an important gap. In its presentation of strategic planning, the text incorporates both traditional and modern frameworks. Dr. Frenzel divides this vast topic into six manageable sections.

The book begins with a study of the Nature of Information Technology which describes "the nature of information technology and the issues related to its management." In this section, the traditional IS literature, i.e. Gorry & Scott Morton, Nolan, Rockart, Porter, has been used as a theoretical foundation to support recent findings indicating the important topics in IS and subsequently information technology (IT) management. He examines the development of a strategy in general, and then applies it in an intuitive manner to organizational strategies for IT. The importance of the development, implementation and maintenance of cooperative business and IT strategies is recognized as a critical recursive relationship.

The second section explores information delivery systems and technology trends, beginning with a brief overview of the development of hardware and software technologies which

shape current IT architectures. One of the inherent difficulties in writing a text book which addresses any evolution in technologies, is the inability to keep it "state-of-the-art". This is evident in this section as the author provides a thorough overview of the technology. In the few short years since the material was written, the technology has advanced to a significant degree, especially in the hardware areas. Perhaps a slightly less emphasis on the specific technologies would allow the text to avoid the need for rapid re-write, and subsequent editions to keep the subject matter current. As an overview of the associated telecommunications technology, however, the author in a few short pages, quickly and efficiently summarizes a large degree of the technical details. This is very valuable for business students and professionals.

The next section addresses the applications portfolio resource, as a major source of benefits for the firm. Here the author combines information resources management and traditional business portfolio approaches to study the management issues critical to the information technology of the business. The book also explores traditional systems delivery mechanism as well as alternatives to formal development, tying key issues in project and risk management into IT life cycles. This approach takes a grand step towards presenting integrations considerations to support the disintegration of the isolationist IS mentality and general business technophobia some organizations are still trying to overcome.

Dr. Frenzel next presents tactical and operational considerations, to develop a description of disciplined processes for managing the tactical and operational situation encountered in IT operations. This section addresses several key issues far too often overlooked in IS system projects and in IS project instruction. Customer expectation, problem management, change management, recovery management and network management issues are presented, successfully rounding out critical concerns in the management of technology. Seldom does one text present a comprehensive view of these peripherals. The fifth section discusses controlling

the information resource. Controlling is a basic management function. Accounting controls ranging from traditional cycle costs and chargeback methods to alternative methodologies like the concept of the IT as a profit center are presented and analyzed. Security concerns, technology control and asset protection are addressed. If this section were to be improved, it could expand its study of the types of threats and risks to IT, above and beyond simple viruses. The threats to IT can come in various forms and dimensions; manmade vs "acts of God," intentional vs. accidental, and internal vs. external. An enhanced examination of this consideration, as well as recommended 'counter-measures' would enhance the presented material. Similarly, there are risks involved in implementing IT in organizations and this needs to be addressed.

The book concludes with a discussion of preparing for advances in information technology, recognizing the dynamic nature of the business environment, and the role of IT in helping the organization to keep pace with the rapid change. Here is perhaps another area where the subject material could be expanded. Recent trends in IT supporting organizational change have shed new light on the transformation of business through a variety of change techniques, ranging from incremental changes to radical reengineering. Throughout the change, regardless of the particular nomenclature or phraseology used, the new supportive or enabling role of IT has become an item of great interest to practitioners. As such, it would surely enhance the existing materials, as a key concern of both business and IT professionals for the future. The role of the CIO as presented highlights the plight of a class of rapidly rising IS professional, who have a

unique perspective of the overall operations of the business. The importance of the IT professionals is so rapidly growing in attention and respect., that it may warrant a complete independent chapter, earlier in the text.

The major problem instructors had in using the book was the lack of a case book to accompany the book. The Business Vignettes are short and difficult to be used for in-class assignments. The review questions, discussion questions, and assignments at the end of each chapter are valuable to the instructor. A case developed for each part of the book would be an important addition. A final case integrating the material presented in the book would be an excellent addition. Since the field is moving fast, some of the new topics such as "global networking," "reengineering," "quality management" are missing in this book. Regular revisions to this textbook should keep it as an important and pioneering text book for courses on Information Resources Management and Information Technology Management.

In summary, few texts, if any, have covered as broad a subject area, of as relevant a topic, with as thorough a coverage as this one. The book clearly presents a myriad of topics, properly addressing each in turn, with smooth transitions in a logical manner. It is an easy book to read which, in and of itself, speaks highly of its author. Whether it is to be used for a management of information technology class, an information resources management class, or as a supporting text for general business classes, Management of Information Technology, will be very helpful in classes for academia, and will be an informative guide for practitioners.