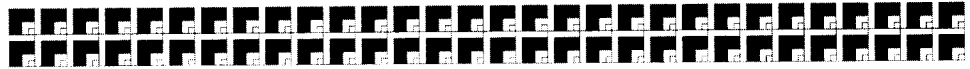


ELECTRONIC COMMERCE

A MANAGERIAL PERSPECTIVE



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Electronic Commerce

A Managerial Perspective

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Preface

As we enter the second millennium we experience one of the most important changes in our lives—the move to an Internet-based society. Almost everything will be changed at home, in school, at work, in the government—even in our leisure activities. Some changes are already here and they are spreading around the globe. Others are just beginning. One of the most significant changes is in the manner we conduct business especially in how we manage the marketplace and commerce.

Electronic commerce (EC) describes the manner in which transactions take place over networks, mostly the Internet. It is the process of electronically buying and selling goods, services, and information. Certain EC applications, such as buying and selling stocks or books on the Internet, is growing at a rate of several hundred percent every year. Electronic commerce could have an impact on a significant portion of the world, on businesses, professions, and, of course, on people.

However, the impact of EC is not just the creation of Web-based corporations. It is the building of a new industrial order. Vice President Albert Gore Jr. put it this way:

We are on the verge of a revolution that is just as profound as the change in the economy that came with the industrial revolution. Soon electronic networks will allow people to transcend the barriers of time and distance and take advantage of global markets and business opportunities not even imaginable today, opening up a new world of economic possibility and progress.

Such a revolution brings a myriad of opportunities as well as risks. Bill Gates is aware of that, as Microsoft is continually developing Internet and EC products and services. Yet, Gates said that Microsoft is always two years away from failure, that somewhere out there is a competitor, unborn and unknown, who will render your business model obsolete. Bill Gates knows that competition today is not among products, but among business models. He knows that irrelevancy is a bigger risk than inefficiency. What is true for Microsoft is true for just about every other company. The hottest and most dangerous new business models out there are on the Web.

The purpose of this book is to describe what EC is; how it is being conducted and managed; and its major opportunities, limitations, issues, and risks. Electronic commerce is an interdisciplinary topic and, therefore, it should be of interest to managers and professional people in any functional area of the business world.

In addition, people in government, education, health services, and more could benefit from learning about EC. This book is structured around the notion that EC applications, such as home banking or electronic fund transfers, require certain technological infrastructures and other support mechanisms. The applications are divided

into business-to-consumers, business-to-business, and intrabusiness. The infrastructure is in the areas of hardware, networks, and software. The support services range from secured payment systems to communication standards and legal issues.

This book is one of the first texts entirely dedicated to EC. It is written by experienced authors who share academic as well as real-world experiences. It is a comprehensive text that can be used in a one-semester course, or it can supplement a text on Internet fundamentals, on MIS, or on marketing.

Features of the book

Several features are unique to this book. They include:

- *Managerial Orientation*
Electronic commerce can be approached from two major aspects: technological and managerial. This text uses the second approach. Most of the presentations are about EC applications and implementation and are geared toward functional and general managers. However, we do recognize the importance of the technology; therefore, we present the essentials of EC infrastructure in chapter 11. We also provide some more detailed technology material in the appendices at the end of the book.
- *Interdisciplinary Approach*
Electronic commerce is interdisciplinary and we illustrate this throughout the book. Major related disciplines are Accounting, Finance, Information Systems, Marketing, Management, and Human Resources Management. In addition, some nonbusiness disciplines are related, especially Computer Science, Engineering, Psychology, Political Science, and the Legal field. Finally, Economics plays a major role in the understanding of EC.
- *Real-World Orientation*
Extensive, vivid examples from large corporations, small businesses, and government and not-for-profit agencies make concepts come alive by showing students the capabilities of EC, its cost and justification, and some of the innovative ways real corporations are using EC in their operations.
- *Solid Theoretical Background*
Throughout the book we present the theoretical foundations necessary for understanding EC, ranging from consumer behavior to economic theory of competition. Furthermore, we provide extensive references, Web site addresses, and many exercises to supplement the theoretical presentations.
- *Most Current*
The book presents the most current topics of EC, as evidenced by the many 1998 and 1999 citations. Topics such as extranets, organizational knowledge bases, Web-based supply chain systems, and EC economics are presented both from the theoretical point of view and from the application side.
- *Economic Justification*
Information technology is mature enough to stand the difficult test of economic justification, a topic ignored by most textbooks. It is our position that investment in EC must be scrutinized like any other investment, despite the difficulties of measuring technology benefits.

- *Integrated Systems*
In contrast with other books that highlight isolated Internet-based systems, we emphasize those systems that support the enterprise and supply chain management. Interorganizational systems are particularly highlighted, including the latest innovations in global EC and in Electronic Data Interchange (EDI).
- *Global Perspective*
The importance of global competition, partnerships, and trading is rapidly increasing. Electronic commerce facilitates export and import, managing multinational companies, and trading electronically around the globe. International examples are provided throughout the book.
- *Comprehensiveness and Ease of Reading*
All major topics of EC are covered. Furthermore, the book is user friendly, easy to understand and follow, and full of interesting real-world examples and “war stories” that keep the reader’s interest at a high level.

Organization of the book

The book is divided into five parts composed of 12 chapters with three technology appendices supplementing them.

PART I—INTRODUCTION

In this part we provide an overview of the entire book as well as the fundamentals of EC and some of its terminology (chapter 1).

PART II—APPLICATIONS

In this part we describe EC applications in six chapters. Chapters 2 and 3 are dedicated mostly to business-to-consumer commerce (chapter 2 deals with retailing, chapter 3 with Internet consumers and market research). Chapter 4 deals with EC advertisement, which is mostly related to business-to-consumer. In chapter 5 we present EC in service industries. These can be for individual consumers, for businesses or for both. Chapters 7 and 8 deal with various aspects of business-to-business and intrabusiness EC.

PART III—SUPPORTING ELECTRONIC COMMERCE

To support EC one needs various infrastructures and mechanisms, most importantly the payments (chapter 8), which are more relevant to business-to-consumer activities. Corporate strategy toward EC, especially planning, justification, and implementation, are treated in chapter 9. The last chapter in this part, chapter 10, deals with issues of public policy, privacy, legal issues, and ethics.

PART IV—TECHNOLOGICAL INFRASTRUCTURE

The technological infrastructure is covered in chapter 11, with details presented in Appendices A–C.

PART V—ADVANCED EC TOPICS

The book concludes in chapter 12 with a glance at the economics of EC as well as at several other issues, such as global EC, small businesses and EC, and EC research. This chapter also provides an overview of future EC directions.

Learning aids

We developed a number of learning aids including:

- *Chapter Outline*
The detailed outlines in the Contents at the beginning of the book provide a quick indication of the major topics covered.
- *Learning Objectives*
Learning objectives at the beginning of each chapter help students focus their efforts and alert them to the important concepts to be discussed.
- *Opening Vignettes*
Each chapter opens with a *real-world* example that illustrates the importance of EC to modern corporations. These cases were carefully chosen to call attention to the major topics covered in the chapters.
- *Managerial Issues*
The final section of every chapter explores some of the special concerns managers face as they adapt to doing business in cyberspace.
- *Key Terms*
All boldface terms introduced within the chapter appear in a list at the end of the chapter and are defined in the glossary at the end of the book.
- *Chapter Summary*
The chapter summary is linked to the learning objectives introduced at the beginning of each chapter.
- *End-of-Chapter Exercises*
Different types of questions measure students' comprehension and their ability to apply knowledge. Questions for Review ask students to summarize the concepts introduced. Discussion Questions are intended to promote class discussion and develop critical thinking skills. Exercises are challenging assignments that require students to apply what they have learned. The Group Assignments are class projects designed to foster teamwork.
- *Internet Exercises*
About 100 hands-on exercises send students to interesting Web sites to conduct research, investigate an application, or learn about state-of-the-art *technology*.
- *Application Cases*
In-text cases highlight real-world problems encountered by corporations as they develop and implement EC.
- *Real-World Cases*
Each chapter ends with a somewhat more in-depth real-world case. Case questions follow.

Supplementary materials

The following material is available to support this book:

- *Instructor's Manual with Test Item File (Test Bank)*
This manual includes answers to all review and discussion questions, exercises, and case questions. The printed Test Item File includes multiple-

choice questions for each chapter. An electronic version of the Test Item File is available in the form of the Windows PH Test Manager.

- *PowerPoint Lecture Notes*
An extensive set of Microsoft PowerPoint lecture notes, oriented toward text learning objectives, is available for each chapter. Lecture Notes can be downloaded from the text's Web site at www.prenhall.com/turban.
- *Web Site*
The book is supported by a Companion Web site that includes:
 - a. A password-protected faculty area where instructors can download the PowerPoint Lecture Notes and the Instructor's Manual.
 - b. URLs for all the major topics in the book with links to other sources.
 - c. Links to a large number of case studies, including customer success stories and academically oriented cases.
 - d. Links to many EC vendors' sites.
 - e. Supplemental material for each chapter.

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